Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE II.—PART IX.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

A lesion in one side of the brain can produce paralysis in both sides of the face—Paralysis of the face can appear in one side only in cases of lesions in the two sides of the brain—Inadequacy of the received views on the origin of paralysis to explain the above facts—Cases in which a lesion of the so-called psycho-motor centres has produced the kind of paralysis which should occur according to the new doctrine of localisation—Cases in which a lesion of a part of the region of the so-called psycho-motor centres has produced a more extensive paralysis than that which would have existed had the views on localisation been right—Cases in which a lesion of parts of the convolutions quite distinct, and more or less distant, from those considered as psycho-motor centres, has produced a paralysis of the face—Conclusions from the above facts.

THE next point I wish to establish is, *that paralysis may appear in the two sides of the face seemingly from a lesion in only one side of the brain.* Bricheteau[1] gives a case of considerable pressure, on the whole upper surface of the left hemisphere, by a cyst filled with clots and altered fluid blood. There was right hemiplegia; the lips and cheeks on both sides were pushed out at every expiration. This was not allied with an extremely deep coma, as the patient seemed to understand some questions; general sensibility persisted, and the pupils were contractile. It seems clear, therefore, that in this case there was simultaneously a direct and a cross paralysis of the face—i.e., a paralysis in both halves of the face caused by a lesion in only one side of the brain. In a case reported by Durand-Fardel[2] the cheeks were both pushed out by the expired air, although there was no evident paralysis or rigidity of limbs, no anæsthesia, and only sleepiness (no decided coma). The lesion was softening of the white substance of the *left* posterior lobe, so that not only the paralysis of the *left* buccinator, but that also of the *right* one, was in opposition to the now received views as regards the mode of production of paralysis. In another case of softening, recorded under the observation of Professor Charcot, Dr. Poumeau[3] found that the buccinator muscles were moved on both sides, but evidently less on the left than on the right. The patient was then sensible, and could move both lower limbs and the left upper one. The lesion (softening) occupied the lower part of the optic thalamus and the upper part of the crus cerebri on the left side. In another case, and a most remarkable one in many respects, Prof. Romberg[4] found a double facial paralysis characterised by loss of voluntary movement, but with conservation of the involuntary, the associated and the instinctive movements of all the muscles animated by the two facial nerves. There was no other cause for the loss of power (which persisted after the cessation of a paralysis of the left limbs), but a hæmorrhagic cyst, the size of a walnut, at the external edge of the right hemisphere, with destruction of two gyri.[5]

These cases certainly seem to prove that a paralysis may appear in both sides of the face from lesion limited to a part of one-half of the brain. I will now show that the reverse often takes place—i.e., *that paralysis may appear in only one side of the face from lesions in both sides of the brain.*

In a case of paralysis of the four limbs, remarkable on account of a greater degree of the paralysis of the limbs on the side of the greatest lesion (the left), Dr. J. Crichton Browne[6] found the face "drawn to the right," which implies a facial paralysis on the left side. The corpora striata and optic thalami on both sides were diseased, the left more than the right, so that the facial paralysis was on the side most altered. In many other cases in which there were lesions in the two sides of the brain, there was paralysis of the limbs and face on the side where the lesion was greatest. So it was in a remarkable case in which Cazauvielh[7] found the brain atrophied on the left side, while there was only a slight alteration of the posterior lobe on the right side. The paralysis existed only on the left side (face and limbs), but chiefly in the leg. So it was also in cases of Duplay's,[8] Gintrac's,[9] and Martineau's.[10] It could not be said that in those cases, although the lesion was greater or more extensive in the half of the brain corresponding with the side of the paralysis of the face and limbs, the seat of the smaller lesion was in some part of the voluntary motor apparatus (the centres or the conductors), while the main alteration occupied less of that apparatus or no part at all. Taking matters in that light, I can state that in three at least of the four last cases quoted the lesions on the same side as the paralysis of the face and limbs had destroyed or altered a greater part of the voluntary motor apparatus than the lesions on the opposite side.

If we keep in view the notions that are now gaining ground so fast, and admitted as true without any critical examination of their real worth, we find that the history of facial paralysis occurring on one side from a lesion on both sides of the brain, furnishes, besides the facts I have already mentioned, a good many others which are in total disagreement with those notions. I will hastily point out some of those facts. Prof. Charcot[11] in a case in which the face and limbs were paralysed on the right side, found a subarachnoid hæmorrhage over both hemispheres, more abundant on the right than on the left, and behind the two fissures of Rolando a certain extent of softening, greater on the left than on the *right*. Both lateral ventricles were filled with blood, and the walls of the left ventricle were softened. As before dying the four limbs of the patient were in a state of resolution for a number of hours, it may be said that the lesions on the left side had existed for a few days, and that the lesions on the right side occurred only on the day of death. This may be true, but nothing in the description of the lesions favours such a view. In a case of Barth's[12] there was loss of movement and sensibility in the *left* limbs and face, and later on a slighter paralysis of the right side. On the convex surface of the right hemisphere there was an abscess the size of an egg, and on the left hemisphere there were three abscesses; a large one on the middle lobe, with smaller ones in front and behind. In a case of transitory facial palsy on the *left* side, without any other paralysis, Abercrombie[13] found three abscesses, one in the right posterior lobe, and two in the *left* hemisphere, one in the anterior lobe the other in the posterior. Moulin[14] gives a case of considerable hæmorrhage over the two halves of the brain between the meninges. There seems to have been no difference in the amount of blood on the two sides. There was paralysis of the face and limbs on the left side. In a case of the same kind, the hæmorrhage having taken place on the two sides in the cavity of the arachnoid, Prus[15] found the face and limbs paralysed on the right side. In a case of Rochoux[16] a man survived three years after an attack of paralysis of the tongue, with an incomplete paralysis of the left side of the face and body. The two corpora striata

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1 Union Médicale, 1853, p. 358, and Gazette des Hôpitaux, 1853, p. 368, quoted by Gintrac, loc. cit. vi., 692.
2 Traité du Ramollissement du Cerveau, p. 113.
3 Du Rôle de l'Inflammation dans le Ramollissement Cérébral (Paris, 1866), p. 44.
4 A Manual of the Nervous Diseases, translated by Dr. E. H. Sieveking (London, 1853), vol. ii., p. 278.
5 The case is also remarkable in the production of persistent aphasia from disease of the right hemisphere, with a temporary left hemiplegia.

6 West Riding Lunatic Asylum Reports, vol. v., 1875, p. 235.
7 Archives Gén. de Médecine &c. (Paris, 1827), vol. xiv., p. 440.
8 Ibid., 1834, vol. vi., p. 314. 9 Loc. cit., vol. vii.
10 Bulletins de la Société Anatomique de Paris, 1860, vol. xxxv., p. 446.
11 In a case communicated to Bouchard, who gives it in his thesis, Etude sur quelques points de la Pathogénie des Hémorrhagies (Paris, 1867), p. 25.
12 Bulletins de la Société Anatomique (1853), vol. xxviii., p. 331.
13 Loc. cit., p. 99. 14 Traité de l'Apoplexie (Paris), p. 98.
15 Quoted by Gintrac, vol. vi., p. 682.
16 Recherches sur l'Apoplexie, 2de édit., p. 177.

showed remnants of effusion of blood, more in the right side than in the left. In a case of J. P. Frank's[17] paralysis appeared first in the upper limb, then in the face and leg on the right side. There was a large tumour in the posterior part of the left hemisphere, and near the falx in the middle part of that hemisphere "a livid spot descending down to the ventricle with a beginning of suppuration." In the right hemisphere a similar alteration existed above the ventricle of equal size and filled with a blackish matter. On neither side, either in this case or in the preceding ones, was there a lesion of the part considered as the facial psycho-motor centre. In a case of G. Frank's[18] there was paralysis of the cheek, mouth, and limbs on the left side, there was purulent matter in the lateral and in the third ventricles, and an abscess opened through the bones behind the chiasma. If the crura cerebri were injured, which is almost certain, it must have been on both sides, and still the face as well as the limbs were only paralysed on the left side.

A careful report of a case similar to the preceding ones is given by Gintrac.[19] The face and limbs on the *right* side were paralysed. The *right* ventricle was distended by as much as half a tumblerful of serosity; the left ventricle contained an ounce of that fluid. There was a slight softening and a yellow tinge in the cerebral tissue near the left corpus striatum. In another case, in which the two lateral ventricles were apparently equally distended, but by blood, Sadourny[20] found the face and limbs paralysed on the left side. A good observer, Duplay,[21] in a paper I have already quoted, gives a case of paralysis and anæsthesia of the right side of the face, in a patient who had a series of attacks of vertigo, with or without loss of consciousness, and no decided paralysis elsewhere. The autopsy showed a number of small hæmorrhagic cysts in each of the two hemispheres. There was no trace of disease in the convolutions, in the pons Varolii, or in the corpora striata.

According to the views I hold, the cause of the facial paralysis on one side, associated with lesions in the two halves of the brain, in the cases I have just mentioned, may as well have been in the corresponding as in the opposite cerebral hemisphere. If, as I maintain, any paralysis of cerebral origin arises from an irritation transmitted from the place of an organic disease to more or less distant parts, so as to stop the activity of their nerve-cells endowed with the motor functions which are then lost, there is no reason why a paralysis should always appear in the side of the body opposite to that of a lesion in the brain. On the contrary, for those who hold the view that paralysis results only from the loss of the function of the part diseased, cases such as those I have just given cannot be explained. If in all those cases there had been a lesion of the pretended psycho motor centres or of their radiations towards the base of the brain, on the side opposite to that of the paralysis, and no lesion of these centres or radiations in the cerebral hemisphere corresponding with the side of the paralysis, an easy explanation would have been found for those cases. But such is not what was ascertained in those facts—in so far, at least, as concerns the pretended centre for the movements of the face or its radiations. In the cases I have mentioned, either there was an alteration of motor centres on the two sides, or the lesion existed in both those sides in parts not belonging at all, or only partly belonging, to the voluntary motor apparatus. These facts therefore are in decided opposition to the view I contend against—that paralysis in cases of organic disease of the brain is the effect of loss of the function of the diseased part.

I will now show *that in the ordinary cross hemiplegia from brain disease there may be facial paralysis wherever the cerebral lesion may be situated*. I will begin by an examination of facts relating to the convolutions of the brain. These facts may be ranged into three groups: 1st, those which are, or seem to be, in perfect harmony with the requirements of the views of localisers (especially Dr. Ferrier's); 2nd, those which are partly in harmony with and partly in opposition to those views; 3rd, those which are in absolute opposition to those views.

1st. *Cases in which a lesion of the so-called psycho-motor centres has produced the kind of paralysis which should occur according to the new doctrine of Localisation.* In a most important paper of Prof. Charcot and M. Pitres,[22] written with the intention of giving clinical support to the views of localisers, many cases are given which have been considered as extremely valuable for that purpose. There are but very few, however, that are in more or less perfect harmony with those views, so far as paralysis is concerned. They are the following:—Case 9 (p. 121). Sudden paralysis of limbs, face, and tongue on the right side; softening of the foot of the third frontal convolution, of the two ascending convolutions, and of neighbouring parts, on the left side.[23] Case 11 (p. 181). Sudden paralysis of the left side of the face, with rigidity of the left limbs. After a time, this spasmodic condition ceased, and no paralysis remained but in the face. The autopsy showed a softening of the whole of the third frontal convolution, of the lower third or fourth of the two ascending convolutions and of some other convolutions behind and below the three named. In this case the pretended centre for the movements of certain parts of the face was the only part diseased, and the paralysis was limited to those parts. In Case 13 (p. 186), given to Prof. Charcot by Mr. H. Martin, we find that a slight paralysis of the left arm and a notable paralysis of the left side of the face, without any alteration of movement in the legs, was caused by a very limited softening occupying the foot of the frontal and parietal ascending convolutions, and other parts in the neighbourhood of the fissure of Sylvius, so that the whole of the supposed centre for the lower parts of the face and a part of the centre for the arm were diseased.

One of the cases of Dieulafoy's,[24] so often quoted by localisers, is in a great measure in harmony with the views of Dr. Ferrier as regards the centre for the movements of the face. There was paralysis of some of the facial muscles on the right side, caused by two extremely small effusions of blood in the white substance of the left third frontal convolution.

There are less clear cases that I might add to the above, but what is important, now that there is such a feverish enthusiasm among so many people about the new doctrine of localisation, is much less to bring forward facts that are in favour of that doctrine, than to ascertain if there are not positive facts against it. I, therefore, pass at once to the two series of cases that are in partial or in complete opposition to the new doctrine.

2nd. *Cases in which a lesion of a part of the so-called psycho-motor centres has produced a more extensive paralysis than that which would have existed had the views on localisation been right.*—There are a number of such cases in the important paper of Professor Charcot and M. Pitres. In Case 7 (p. 118) there was considerable paralysis of the face and complete paralysis of the limbs on the left side, and the lesion, as the text and a figure (Fig. 13, p. 119) clearly show, had only altered a part of the zone of the pretended motor centres—the whole extent of the centre for the leg, a part only of the centre for the face, and very little of the centre for the arm. This case is, therefore, a decisive fact against the doctrine of localisation, especially as regards the seat of the pretended centre for the movements of the arm. The next case (8, p. 121), is also decisive against that doctrine, and for the same reason. There was hemiplegia with very marked facial paralysis on the left side, and the lesion had respected a good part of the centre for the arm, and the whole centre for the leg, as shown by the text and a figure (Fig. 14, p. 121). A case very similar to this was published by Bouchard,[25] who observed it in Professor Charcot's wards. There was paralysis of the face and limbs on the right side, and as a primitive cause nothing but softening of the left anterior marginal (frontal ascending) convolution, and a part of the second and third frontal convolutions, with a part of the island of Reil. In this case the whole of the centre for the leg, and parts of the centres for the arm and for the face had not been altered. To produce the paralysis that existed in the limbs and face in these three

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17 Quoted by Gintrac, vol. viii., p. 196.
18 Quoted by Lallemand, loc. cit., vol. ii., p. 172.
19 Loc. cit., vol. vii., p. 089.
20 Quoted by Gintrac, loc. cit., vol. vii., p. 261.
21 De la Paralysie Faciale produite par une Hémorrhagie Cérébrale, p. 15; a reprint from L'Union Médicale, Août, 1854.

22 Revue Mensuelle de Médecine et de Chirurgie (Paris, 1877), vol. i., Nos. 1, 2, 3, 5.
23 The next case (10) leaves a doubt, as the details are not given, concerning the paralysis. The case is, however, just the same as the preceding in most features.
24 Gazette des Hôpitaux, 1867, p. 229.
25 Clinique de l'Hôtel Dieu, par le Prof. Trousseau, 2de édit., vol. i., p. 604.

cases, the lesion existing in the last two should have existed in each of the three, together with the lesion existing in the first of these cases.

In another of the cases given by Professor Charcot and M. Pitres, I find similar features as in the three already mentioned. In Case 17 (p. 191) there was paralysis of the limbs and face on the right side. The primitive lesion was only a very limited extent of softening, which had destroyed the two inferior thirds of the parietal ascending convolution. The text and a figure (Fig. 17, p. 191) show that the lesion was a very narrow one. In this case the whole of the pretended centre for the leg and a considerable part of the centre for the arm were not altered, and still we find paralysis of the leg and arm. In harmony with the doctrine of localisation, there was, however, this fact, that the facial paralysis was slight, and that the lesion occupied only a part of the pretended centre for the face.

In a paper by Dr. Lépine[26] I find another case of Prof. Charcot's. There was paralysis of the left limbs and of the left side of the face. In the right hemisphere a hæmorrhagic cyst was found in the upper frontal convolution at its place of junction with the ascending frontal (the anterior marginal). This case is in absolute opposition to the views of localisers as regards the seat of the pretended centre for the face, as the lesion was very distant from that seat. Besides, the centres for the two limbs on the left side were altered only in a small part of their extent, and still there was hemiplegia. A case like this, especially when published by such an accurate observer, is decisive in showing—first, that a facial paralysis may appear from a lesion of the brain at a marked distance from the pretended centre for the movements of the face; and, secondly, that hemiplegia may be caused by a lesion occupying but a small part of the pretended centres for the movements of the arm and leg.

In another case recorded by Dr. Lépine,[27] under the eyes of the same eminent physician, there was paralysis with flaccidity of the whole left side of the body and face; there was atrophy of a small part of the convex surface of the right hemisphere in the interval between the first and the second frontal convolutions, close by the ascending frontal. The remarks I have just made about the preceding case apply with the same force to this one.

Prof. Charcot and M. Pitres give a case (34, p. 372) in which there was complete paralysis of the left limbs and a slight paralysis of the face on the same side, caused by four small patches (*foyers*) of softening—two on the first frontal convolution, one on the second sphenoidal, and the fourth between the posterior extremities of the second and third frontal, close by the ascending frontal. In that case the only fact in harmony with the doctrine of localisation is the facial paresis, as there was no lesion of the pretended centres for the limbs, although there was hemiplegia.

MM. Prévost and Cotard[28] give a case of softening of the second and third left frontal convolutions, which had caused paralysis of the right buccinator and of the right limbs. If this is a case in harmony with the doctrine of localisation as regards the face, it certainly is in opposition to that doctrine as regards the centres for limbs, as these convolutions are outside of the zone of psycho-motor centres for the upper and the lower limbs.

In three cases which I find in a good paper of Landouzy,[29] in which the face and limbs were paralysed on one side, the pretended psycho-motor centres were altered only in part of their extent, so that there ought not to have been such a paralysis.

Griesinger[30] has published a case of paralysis of the two right limbs with paresis of the face, in which the lesion occupied mainly the region of the centre for the movements of the leg.

Among old cases I will mention only two which have the same significance as those I have already related. One is given by Lallemand.[31] There was a very small mass of softening, the size of a filbert, in a convolution on the external and superior parts of the left middle lobe. The limbs and face on the right side were paralysed. Another is given by Bouillaud.[32] In this case there was complete paralysis of the face and arm on the right side, and later on of the leg also. The lesion consisted in a superficial abscess, the size of a hen's egg, at the junction of the anterior with the middle lobe on the left side. The brain was healthy everywhere else. The exact seat of the lesion is not stated, but it is clear, from its small extent, that a great part of the motor centres must have remained healthy. Still the paralysis, at first complete in the face and arm, became so also in the leg.

The above cases, and many others that I might relate, clearly show that the face and limbs can be more or less completely paralysed, while a part or the whole of each of the three pretended psycho-motor centres (that of the arm, that of the leg, or that of the face), remains unaltered. I pass now to the third series of facts concerning the convolutions of the brain.

3rd. *Cases in which a lesion of parts of the convolutions quite distinct and more or less distant from those considered as psycho-motor centres, has produced a paralysis of the face.*—In a case of Dr. Poumeau's,[33] recorded under the supervision of Professor Charcot, there was considerable paralysis of the face and limbs on the left side, caused by softening of the second frontal and of the second sphenoidal convolutions. In this case the lesions were completely outside of the zone of the pretended motor centres, and still there was paralysis of both the face and limbs on one side. In an interesting case of Bernhardt's,[34] there was at first paralysis of the left arm, then of the left leg, and at last of the left side of the face. There was a sarcoma in the right temporal (sphenoidal) lobe, not reaching the surface, and extending to the interhemispheric fissure. No doubt that in such a case some of the radiations from the motor centres for the limbs were destroyed, but neither the pretended centre for the face nor its radiations can have been destroyed. Still, a facial paralysis appeared, though late. De Laudeta[35] has published a case of paralysis of the limbs and face on the right side, in which there was no other lesion than a pressure on a number of convolutions of the left posterior lobe by small tumours under the dura mater. In this case neither the pretended motor centres nor their radiations had any alteration. Dr. Janeway,[36] a very able physician, has recorded a case of paralysis, slight in the arm and face, and slighter in the leg on the left side, caused by a small sarcoma surrounding an exostosis in one of the right frontal convolutions. Unfortunately it is not said what was that convolution, but whether it was the ascending frontal or any other, it is clear that either the lesion was only in a part of the zone of the pretended centres, and should have produced much less paralysis, or it was outside of that zone and should have produced no paralysis at all.

In another of the two often-quoted cases of Dieulafoy's[37] there was paralysis of the arm and face on the right side, caused by a small effusion of blood (the size of a filbert) in the upper (internal) part of the anterior parietal convolution (frontal ascending), the tissue of which was softened round the clot. In this case the pretended centre for the face was not altered, and still there was a facial paralysis. Besides, the centre for the arm was only partly injured, and the brachial paralysis was complete.

Lallemand[38] gives a case in which there was a small effusion of blood and softening at the anterior and outer parts of the left frontal lobe, with paralysis of the face and limbs on the right side. Hayem[39] has carefully recorded a case of inflammation and tuberculous infiltration of the anterior and outer parts of the right frontal lobe, with progressive paralysis of the left limbs and an incomplete facial paralysis on the same side. In these two cases the lesion was not in the zone of the pretended centres, and still there was paralysis of the limbs and face.

Other cases I might easily add, but I think the facts I have mentioned amply establish—first, *that very frequently a lesion of the brain in the zone where localisers place their pre-*

[26] De la Localisation dans les Maladies Cérébrales (Paris, 1875), p. 33.
[27] Loc. cit., p. 36.
[28] Gazette Médicale de Paris, 1868, p. 338.
[29] Contribution à l'Etude des Convulsions et des Paralysies liées aux Méningo-encéphalites, Paris, 1876; cases of Dreyfus', p. 161; of Jeffroy's, p. 209; and of Rendu's, p. 230.
[30] Quoted by Charcot and Pitres, loc. cit., pp. 369-70.
[31] Loc. cit., vol. i., p. 151.
[32] Traité Clinique et Physiologique de l'Encéphalite (Paris, 1825), p. 148.
[33] Loc. cit. p. 58.
[34] Quoted by Charcot and Pitres, loc. cit. p. 190 (note).
[35] Bulletins de la Société Anatomique, 1863, p. 505.
[36] New York Medical Journal, December 1874, p. 643.
[37] Gazette des Hôpitaux, 1869, p. 180.
[38] Loc. cit., vol. i., p. 19.
[39] Etude sur les Diverses Formes d'Encéphalite (Thèse, Paris, 1868), p. 70.

tended psycho-motor centres will produce paralysis, either where it should not appear, according to the doctrine of localisation, or much more intense than it should be, considering that a more or less large part of the so-called psycho-motor centres has remained unaltered; secondly, *that a lesion of convolutions outside of the zone of the pretended motor centres has often produced paralysis in the face, the arm, and the leg, contrarily to the doctrine of localisation.*

VENOUS CIRCULATION IN RELATION TO SOME OF THE DISEASES WHICH AFFECT THE LOWER LIMB.

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I.—GOUT.

DURING the years 1873, '74, and '75, I was considerably engaged in investigating the subject of the venous circulation through the lower limb—the leg and foot more especially. With the assistance of Mr. W. Pearson, the very able anatomist at the College of Surgeons, I made injections of its veins in both directions—i.e., centripetally as well as centrifugally—and from different points; and with the aid of my talented friend Dr. William Smith of Burgess Hill, late demonstrator of anatomy at the University of Melbourne, I have been enabled to get some very excellent injections of the veno-capillary system. Although the yield in point of additional information respecting the anatomy of the veins and the function of the circulation through them is not large—indeed, provokingly small in comparison with the time engaged and the resources at my disposal,—yet I venture to think some points were elicited which are worthy of being recorded, as bearing upon subjects at present ill understood, in great measure because they have not hitherto had illumination from all sources capable of supplying it. Indeed, it is perhaps not too much to say that in works on anatomy and physiology the veins have been too much treated as though they were of very little account in the animal economy. Why it is difficult to say, unless it is that they have not been in an equal degree with their allies, the arteries, of so much account to surgery—the science that gave to anatomy originally its chief practical interest, and thus directed it mainly to those parts and provinces which seemed likely to yield the largest amount of profitable return.

There are several subjects which, I venture to think, the study of the venous system in detail, especially its physiological anatomy, may explain; such as some of the *phenomena* of dry gangrene, effusions into serous cavities, œdema, several of the exanthems, gout, &c. &c. And I venture on the present occasion to illustrate my meaning by taking the last disease, especially its *localisation*, as my theme; more particularly as it has latterly been made the occasion of several interesting articles by some of the most distinguished members of our profession.

In a contemporary journal, Dr. Owen Rees has contributed a "note" on gout, in the course of which he adopts the theory that the phenomena of an acute paroxysm are best explained on the hypothesis that the disease is connected essentially with the circulation in the veno-capillaries of a blood-poison. But unless some satisfactory reason be given why this poison should select those in a certain and defined region — viz., the tissues about and within the metatarso-phalangeal articulation—in which exclusively to display its specific energies, the hypothesis is not only weak at one of its most salient points, but invites criticism at all. I venture to think that a reason can be supplied from the resources of an anatomico-physiological formula which may render that hypothesis unassailable. I must, however, take the liberty of referring to one point in Dr. Rees's note, as it stands somewhat in the way of the explanation I am about to offer; but must premise by calling attention to some well-known historical facts, which will also be found to bear on the subsequent considerations. Capillary phlebitis is not a newly discovered disease. It was ably described and illustrated by Cruveilhier in his great work on Morbid Anatomy (1829–43). Nor is it new that acute attacks of gout are associated with the presence of an excess of urea, in the form of urate of soda, in the blood and tissues of the affected part. Dr. Garrod showed, moreover, most conclusively, that during such paroxysms the kidneys eliminate less than the normal quantity of urea, making it probable that its production in the blood is vicarious of the uric-acid-secreting function of the kidneys (Med.-Chirurg. Trans., 1848).

Since that time, Warren, Mackenzie, Sir Jas. Paget, and others, have particularised and described another kind of phlebitis, which is also in some way related to gout, or rather, as Sir James most aptly puts it, a phlebitis associated with ordinary gouty inflammation in the foot or joints, and which occurs with little or no provocation in persons of marked gouty constitution or with gouty inheritance (see St. Bartholomew's Hospital Reports for 1868, and Clinical Essays and Lectures, 1876). In my Lettsomian Lectures (1868) I also drew attention to the same, as well as to a rheumatic form of phlebitis—i.e., of phlebitis occurring not unfrequently in gouty and rheumatic subjects,—cases of which I had noted down in the course of my search after the etiology of varicose diseases, in the production of which inflammatory action in the coats of the veins, however derived, plays a predominant part.

Now, in part, it seems, in consequence of a perusal of Sir J. Paget's lecture "On Gouty Phlebitis," Dr. Rees arrived at the conclusion that the disease (an acute attack of gout) beginning in the elaboration of a poison from the urinary materials found in the blood, the venous capillaries inflame, and, as a consequence, severe pain is experienced, which is relieved immediately when effusion and swelling occur. Thus taking Cruveilhier's Phlebitis as a disease, and Garrod's hyperureic blood as an excitant and specialiser, and by bringing them into relation with each other as cause and effect, the phenomena of an attack of gout are explained; and, although the logic and the inference are indisputable, it can hardly be doubted that Dr. Garrod clearly saw both the one and the other when with marvellous skill he tracked out in the blood and tissues of a region that had been the seat of such paroxysm, not only a toxic material, but that very material whose known qualities could alone have caused it. Dr. Rees, however, does not appear to base the general construction of this theory upon the important facts just alluded to, which would have rendered it, to a certain degree, incontrovertible, but upon the very questionable assumption that gouty phlebitis is due to precisely the like conjunction of elements as acute gout, substituting in the former the tissues of the veins for those of the veno-capillaries of the latter disease. For, it is argued, if the large veins are prone to attacks of inflammation in gouty persons, why should not a fit of gout be legitimately accredited to veno-capillary inflammation occasioned by urinary blood-poison? The term "a gouty person" is certainly used in speaking of the cause of phlebitis, but, from the inference, it is in the sense that gouty phlebitis is also occasioned by the contact of poisoned blood with the affected vein-coats.

It is to that part of the hypothesis that I think an objection can be fairly taken, which regards the two diseases spoken of as identically the same. In the first place as the veno-capillaries of the affected part are the seat of the diseased action in an attack of acute capillary phlebitis, so, in order to such a conclusion, it must be shown that, in an attack of gouty phlebitis, the like vessels belonging to the vasa vasorum of the affected vein are similarly disordered; and moreover a reason given why the blood, hyperureic throughout the venous system, is toxically so in those vessels, and only over a limited area. Although I have almost illimitable faith that ultimately the progress of discovery in the science of disease will point to a kind of humoralism in which the veno-capillary system and its contents will be found to play the principal and almost sole part in the development of morbid processes and products, and, moreover, although I have seen abundant evidence in the coats of veins of their having severally undergone many of those organic changes that are common to the like tissues in other parts, I do not know that any satisfactory evidence has been obtained in favour of the

view which associates with gouty phlebitis the pathology that belongs to gouty capillary phlebitis; and, in the absence of such evidence, it is certainly difficult to say how it could happen that a certain patch of capillaries in any vein-wall should be exclusively subject to the irritation of a poison that is, or at all events is reasonably supposed to be, diffused throughout the vein-blood.

Then, again, the diseases differ in almost every point, with the exception of their being inflammatory in their nature—a matter of very little differential import. Gouty phlebitis attacks a vein, or portion of a vein, without any apparent assignable reason for the preference; whereas a veno-capillary phlebitis of a gouty character confines itself, as a rule, to the capillary system of the tissues around or within the metatarso-phalangeal articulation of the great toe, or in joints in which the vascular system, especially in relation to the venous department, is, in its arrangements, in conformity with those of the joint alluded to. The same remarks apply to other alleged gouty affections—those of the stomach, bronchi, &c. No good reason is given why these should be exceptionally excited to gouty disorder by an irritant which is simultaneously brought into contact with every tissue throughout the body.

The points are these:—During an attack of acute gout the venous blood is throughout impure. Its noxious properties attest themselves *generally* by vascular excitement, with malaise or pyrexia; *locally* by an exaltation of the same condition to a state of extreme tension in the toe; whilst the superficial veins, unless these are, as is sometimes the case, but very feebly developed, are notably bloated over the goutily affected textures and for some distance up the leg, sometimes even to the thigh. Gouty phlebitis, on the other hand, manifests itself in the vein coats, irrespective of any particular locality; is attended with an amount of constitutional disturbance much in conformity with the degree of the concurrent local irritation; and the blood is, I believe, not known to be ureic to a poisonous or hurtful extent.

These differences entitle this latter disease to a distinct place in nomenclature, but only on condition that it has an etiology as well as a pathology, in concurrence with its symptoms, peculiarly its own, and in very limited affinity with those of acute gout.

Whilst, then, gout is due to blood poison, gouty phlebitis is or may exist entirely independent of it. It is due to a gouty diathesis or constitution, hereditary or acquired, by which a free elaboration of urea or its salts may take place in the blood, and cause an acute paroxysm; or, without any such blood impurity, may give rise to local inflammatory disorders on comparatively slight provocation, especially in the vein coats, whose morbid propensities make them a comparatively easy prey to inflammatory action from a variety of constitutional causes.

The gouty diathesis gives a pretext for phlebitis, but of itself no occasion for acute gout. It predisposes to either, but in order to the production of the latter there must be at the same time the faulty condition *plus* faulty blood.

(To be continued.)

ON

THE TROPHIC CHANGES WHICH FOLLOW LESIONS OF THE NERVOUS APPARATUS.

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THE various trophic disturbances which result as a consequence of disease or injury of the central or peripheral nervous apparatus have received from time to time much attention from workers in the field of clinical observation, as well as from physiologists. The explanations which have hitherto been offered are not such as can be unreservedly accepted, and the advocates and opponents of vaso-motor paralytic theories, of irritation theories, of trophic nerve theories, and of theories which account for the phenomena by the loss of the nervous "influence" on the tissues, are probably nearly equally balanced. As the question seems still an open one, there is no excuse necessary for offering an opinion on the subject. I purpose in the following paper to limit myself as much as possible to the consideration of *common* clinical facts and such physiological facts only concerning the explanation of which there is a minimum amount of disagreement. I shall endeavour to avoid touching upon clinical anomalies or rarities, or physiological experiments concerning the explanation of which experts are still agreed to differ.

The common trophic changes with which I propose to deal are—1. Wasting and degeneration of muscle. 2. Congestion and vascular turgescence of the paralysed part. 3. Atrophic changes affecting the skin and mucous membranes, such as acute bedsores, loss of finger-nails, shedding of epithelium, ulcerations of finger-tips and cornea. And, 4. Eruptive changes in the skin, of which herpes zoster is the type.

First, as regards *the wasting and degeneration of muscle* which results from lesions of the nervous apparatus. Our knowledge of this matter is, for the most part, solid and sure, and being confronted with any cause of paralysis, we are able to give an accurate prognosis as to the future condition of the muscles.

We know that in ordinary cases of hemiplegia the paralysed muscles neither waste nor degenerate, and that, even after voluntary motion of one arm has been impossible for years, the muscles will show no appreciable atrophy, and will respond to irritation precisely as do their fellows on the healthy side of the body.

In cases of paraplegia, also, from a localised lesion in the upper part of the cord, provided the cord below the lesion remain healthy, the paralysed muscles will undergo no sensible amount of wasting or degeneration.

We know with equal certainty that in cases of paralysis from division of, pressure on, or disease in, a nerve trunk, wasting and degeneration of muscle is the inevitable result.

We also know that in destructive disease of the cord, whether acute or chronic, whether due to inflammatory change in the cord itself or pressure from thickened membranes or haemorrhage, wasting and degeneration of muscle will inevitably occur. This wasting will take place if the motor tracts of the cord be alone affected, and if the destructive change be limited to the anterior cornua, as is the case in infantile paralysis or spinal paralysis in the adult.

When the destructive changes of the cord are limited to the sensory tracts, such as the posterior nerve-roots and posterior columns, as is the case in the early stages of locomotor ataxy, no wasting or degeneration of muscle occurs.

Cruveilhier's atrophy and pseudo-hypertrophic paralysis I leave out of consideration, as diseases concerning which we have not as yet sufficient certain knowledge upon which to base any profitable discussion.

Thus we find that in certain cases of paralysis there is no wasting and degeneration, while in certain other cases wasting and degeneration are a marked feature; and the following rule is one which is capable of all but universal application: *As long as a paralysed muscle is in communication by means of a healthy nerve with a healthy portion of a nerve-centre, it will neither waste nor degenerate; but if the nerve be divided or have its conductivity for motor impulses destroyed by disease, or if the portion of the centre from which the nerve originates has undergone destructive change, then wasting and degeneration of the muscle are sure to occur.* The wasting of muscle which happens in these latter cases has been attributed to "irritation" consequent on inflammatory change either in the nerve or the nerve-centre; and Charcot lends his authority to the assertion that muscular atrophy (among other trophic changes) is more likely to occur "after *contusions, punctures,* and *incomplete sections of the nerves*—that is to say, after traumatic causes which are most competent to produce neuritis, or at least the neuralgic condition," than after complete sections of nerves.

It seems to me that this theory of the effect of irritation is founded on error, and it has never fallen to my lot to witness any case of nerve injury in which motor conduction of the nerve has been completely arrested for any considerable time, in which wasting of the muscle has not occurred, and that without any sign of irritation in the nerve itself. In the London Hospital Reports for 1866, Mr. Jonathan Hutchinson records seven cases in which one or other of the nerves of the arm was *completely* divided, and in every case muscular atrophy was the result. Of course, it is possible

that a wounded nerve may heal by first intention, and the motor conduction may be interrupted for so short a time that muscular atrophy may not occur. This, however, is a rare occurrence, and I believe the fact is so well recognised that muscular atrophy invariably occurs after *a certain duration* of interrupted conductivity in the nerve that no lengthy arguments are necessary in proof of the assertion. Then, again, we may ask—What are Professor Charcot's irritative lesions? They are all essentially inflammatory and *destructive* in their nature, and tend either to the complete destruction of the nerve, or nerve-centre, or to the replacement of the highly organised nervous tissue by unimpressionable gristle, serving little more than a mechanical purpose, and which most effectually produces a complete functional separation between the nerve-centre and the periphera; and it will be found that whenever functional or actual separation takes place between a muscle and the nerve-centre in which its nerve originates the muscle will waste. To this rule I believe there is no exception. The muscle not only wastes but degenerates, and when tested with the faradaic and galvanic currents gives the well-known "degenerative reactions"—i.e., no response to faradaism, but a ready response to galvanism.

It is a well-established fact also that when a motor nerve is divided the part which is separated from the nerve-centre rapidly degenerates, while that which is still in connexion with the centre undergoes no appreciable degeneration.

What is the cause of this wasting and degeneration of nerve and muscle whose connexion with a nerve-centre has been severed? It cannot be the loss of voluntary motor impulse, because the phenomena are not observed in cases of hemiplegia from brain lesion or of paraplegia from a localised lesion high up in the cord, in which voluntary muscular movement is completely in abeyance. *It is due, I believe, to the separation of the muscle from the nerve-centre, and the consequent loss of the power of reflex stimulation.*

The notion that the nerve-centres have the power of originating or generating stimuli is one which has been gradually abandoned, and the idea that they merely serve to change the form and direction of stimuli originating elsewhere is one which has been gradually gaining ground. The ordinary phenomena of reflex muscular action are well understood. A sensory nerve in the sole of the foot, being stimulated by some influence in the medium which surrounds it, such as the tickling of a hand, or a gust of wind, movement results in the muscles of the limb stimulated; and in proportion to the strength of the stimulus is the amount of movement produced, which may even affect the muscles of the opposite limb, or all the muscles in the body. These reflex movements are quite independent of the will, and, in fact, are better observed when the will is in abeyance. It is easy, we see, to produce reflex movements which our unaided senses can readily appreciate. Are we not justified in supposing that many reflex acts are of so delicate a nature that any measurement of them is impossible? Are we not compelled by modern doctrines to admit that every impression made on the periphera of our bodies travels to the nerve-centres, and produces an effect of some kind? It is to my mind very doubtful whether a healthy muscle is ever absolutely still, and whether, in response to innumerable reflected impulses, molecular movements are not constantly going on which must exercise a powerful influence on its state of nutrition. Whether at work or at rest, awake or asleep, we cannot escape the perpetual stimulation to which our sensory nerves are subjected. This stimulation, though at any one time it may appear slight and inappreciable, is in the aggregate enormous in amount, and being conducted, as it must be, to the nerve-centres, must produce a proportionate effect. I find in Hermann's Physiology, p. 488, an experiment of Brondgeest's which seems to give support to the theory of a constant reflex stimulation of the muscles. "If a frog be vertically suspended, after having its brain separated from its spinal cord, and the nerves of one of its hinder legs be divided, it will be noticed that the injured leg hangs more loosely than the uninjured one. The same results follow if, instead of dividing the whole sciatic plexus of nerves, the posterior roots alone be cut. Hence it must be concluded that the slight flexion of the uninjured limb is not due to an automatic, but to a reflex, action, which is liberated by means of the sensory fibres of the limb, and the necessary irritation of which appears to proceed from the skin."

Looking once more at the clinical aspects of the question, we find that in all cases of paralysis accompanied by wasting and degeneration of muscle, reflex stimulation of the muscles implicated has become impossible.

When a mixed nerve is completely divided reflected stimulation is impossible, because both afferent and efferent conduction is arrested. In those cases in which the power of motion is abolished while sensation remains (which is a frequent result of contusion or pressure), it is evident that, efferent conduction being arrested in the nerve, reflex stimulation is impossible.

If the spinal cord is destroyed by inflammation, or its functions arrested by pressure, it is obvious that reflex stimulation of the muscles supplied by the nerves arising from that part is impossible, and wasting and degeneration is the result.

If the posterior nerve-roots be compressed or destroyed by inflammation, or if the sensory tracts be destroyed, it is evident that the stimulation of the muscles through the motor roots by means of impressions reflected from afferent nerves *of the same level* is destroyed; but since the power of voluntary exercise remains, and the power of stimulation by impressions reflected from afferent nerves of different levels remains also, wasting of muscle does not result.

If the anterior nerve-roots or the cells in the anterior cornua (as in infantile paralysis) be destroyed, then not only is the power of voluntary movement abolished in the muscles supplied by the part, but (the road by which impressions arriving at the level of the cord are reflected to the motor nerves being blocked) the power of reflex stimulation is abolished also, and the muscles rapidly waste and degenerate.

Lastly, in a case of ordinary hemiplegia the power of reflex stimulation remains intact, and the muscles neither waste nor degenerate.

We have seen, also, that when a motor nerve is divided, the distal end rapidly wastes and degenerates, while the proximal end undergoes little, if any, nutritive change, because, probably, impressions from the periphera of the body are reflected to the extremity of the nerve-stump, and thus a proper degree of nutrition is maintained.

Next as to the *congestion and vascular turgescence* which is often observable in a paralysed part.

There is abundant evidence that the minute bloodvessels of a part are capable of being influenced by reflex stimulation, and that, in obedience to impressions originating at the periphera, they may be made to contract or dilate.

The usual effect of stimulating the periphera is, first, a contraction of the cutaneous vessels, followed, after a short interval, by dilatation. Marey's experiment serves to demonstrate this. If a blunt-pointed instrument, such as a pair of dissecting forceps, is drawn with gentle pressure along the back of the hand while it is in a state of moderate redness, a pale streak results, which immediately disappears in consequence of the return of blood into the part. In a few seconds, however, a pale stripe, towards a quarter of an inch in breadth, becomes developed at each side of the line along which the instrument passed, that line having now assumed a red colour if the pressure employed was at all forcible. This is the phenomenon which is generally spoken of as "reaction," and which is due, no doubt, to reflex arterial contraction followed by dilatation. Friction of a part produces the same result, and the state of vascular turgescence which follows on active muscular exercise is also in all probability the ultimate result of reflex stimulation. It sometimes happens that dilatation occurs apparently without any previous constriction, and this would seem more likely to be the case when the stimulation which is locally applied is severe. The cause of this dilatation is doubtful, and why it is that one emotion, such as fear, will cause contraction of the vessels of the face, while another emotion, such as shame, causes a rapidly supervening flush, is still a matter for speculation.

While some hold that dilatation of a small artery is always a paralytic phenomenon, others assert that active dilatation is possible, and bring forward the phenomena of blushing and erection in proof of this assertion. It is, perhaps, more important for us to note that both these phenomena are in the living animal invariably brought about by reflected stimulation.

In the Philosophical Transactions for 1858 are two papers by Professor Lister, one on "The Parts of the Nervous

System Regulating the Contraction of the Arteries," and another on "The Early Stages of Inflammation." In these papers it is conclusively shown that the contraction of the arteries in the frog's web is to a great extent under the control of the spinal cord; that while irritation of the cord produces extreme contraction, the entire removal of the cord causes a permanent dilatation of the small arteries.

The small arteries of the web are constantly undergoing variations of calibre. "Such changes are constantly going on, there being nothing of a rhythmical character about them." These contractions and dilatations are no doubt essential to healthy nutrition. The fact that they occur might be taken as sufficient evidence of that, but seeing that they must influence not only the pressure in the elastic capillaries, but the rate of flow through them, and that they serve to produce those alternating variations of condition which, judging by analogy, are essential to well-being, it is impossible to arrive at any other conclusion.

The fact that these contractions are not rhythmical would exclude the idea of their being in any way comparable to the automatisms of the body, such as the action of the heart or respiration, or of their being directly dependent upon such automatisms.

On the other hand, the fact that these constrictions and dilatations are uncertain in their time of occurrence, amount, and duration, would lend some colour to the supposition that they are dependent on stimuli which are to some extent accidental and uncertain as regards time, amount, and duration.

Now, it is a well-known fact that the arterioles of the frog's web can be made to contract by reflex stimulation, and Mr. Lister has shown that when the reflecting centre, the spinal cord, is completely destroyed, permanent dilatation of the arterioles is the result. These facts, if they do not prove conclusively, at least give a very high degree of probability to the hypothesis that the contraction and dilatation of the arterioles is largely dependent on reflected stimulation.

The stimuli may theoretically be supposed to originate in any point of the periphera, in impressions made on cutaneous nerves and nerves of special sense, in impressions made by contraction of muscle on afferent muscular nerves, in impressions made on the afferent nerves of the viscera, and probably in impressions made on the interior of the arterioles, and conducted to the reflecting centre by their own afferent fibres, which last is, if I mistake not, the well known "stop-cock" theory of Dr. George Johnson.

These reflected impressions probably obey the law of reflex action, and, in proportion to their strength, first produce an effect on their own side and at their own level, next at their own level on the opposite side, and ultimately at any part of the body. The importance of bearing this law in mind, by which an impression at any one part may produce arterial or muscular contraction at any other part, will be seen further on.

Mr. Lister's experiments further show that injury to nervous structures, short of actual destruction of the cord, produces a dilatation of the vessels, which, however, is not permanent. This was well shown on dividing the sciatic. Division of the nerve-roots close to the cord caused a marked dilatation of the vessels, but this effect, although more durable than that produced by division of the sciatic, was not permanent. The recovery of the contractile power of the arteries was complete in three days, and before complete recovery it was observed that the arterial contractions on the paralysed side were less frequent than those on the healthy side, being in the proportion of 1 to 32.

Another result of this operation (which seems important in relation to glossy skin, to be considered hereafter) was that the skin of the limbs supplied by the nerves cut became perfectly smooth instead of being, as usual, rough with minute papillæ. The explanation which Mr. Lister offers of the fact, that after division of the nerve-roots or of the sciatic, the dilatation is not permanent, as it is in the case of total destruction of the cord is, that other nerves come to supply the place of those divided. On the 10th of October, 1857, Mr. Lister divided all the soft parts in the middle of a frog's thigh, except the main artery and vein. The first effect upon the arteries was full dilatation; but about twenty-four hours later they were again of moderate size, while the circulation was still active. "Comparing the result in this case with the permanent dilatation which always occurred after removal of the spinal cord, so long as the circulation continued active, it was evident that the slender filaments contained in the coats of the vessels, or possibly in the bone, had served as an efficient means of communication between the cerebro-spinal axis and the arteries of the foot. ..... From these facts it appears that there exists a very remarkable provision for ensuring the proper regulation of the arterial calibre in a part, in spite of almost complete division of the nerves connecting the vessels with the nervous centre which presides over their contractions. It has been shown by recent discovery that sensation and voluntary motion are abolished in parts whose nerves have been divided, until repair has been effected by a process of fresh formation of the nerve-fibres. But the control of the flow of the nutrient fluid is not allowed to be interrupted in this manner, but continues to be exercised more or less perfectly, notwithstanding nearly absolute severance of nervous connexion."

Mr. Lister's experiments tend to prove that the efferent vaso-motor nerves travel to the periphera probably on the bloodvessels themselves, and possibly also in the spinal nerve-trunks and in the bones.

The way in which the arteries of the frog's web, after every injury to the nervous structures short of actual destruction of the cord itself, recover their activity, and after a greater or less interval resume their habit of contracting and dilating, is certainly remarkable, and shows a power of adaptation to circumstances much higher than is to be found in man. Local ganglia are supposed to exist on the vessels of the web, which may account for the amount of independent vitality shown by the vessels. If such ganglia exist in man, they can hardly be supposed to have so much independent power as in frogs.

(To be concluded.)

THE ANTIPYRETIC TREATMENT OF ENTERIC FEVER.

BY SHIRLEY F. MURPHY,

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THE treatment of enteric fever by reducing the temperature of the patient has met in the hands of foreign physicians with such remarkable success that it is a little surprising it has not been more universally adopted in this country. The papers of Brand, Jürgensen, and others, have now been more than ten years before the profession, but so little attention have they attracted that no English statistics can be found from which satisfactory conclusions can be drawn as to the value of this method of treatment. There are probably several reasons for this indifference: the chief among them being the diffidence with which the German accounts have been received, owing to the somewhat loose way in which cases of febricula and enteric are classed under the same name in Germany; the difficulty of overcoming the prejudices of the patient and his friends in inducing him to submit to what at present in England is a somewhat novel mode of treatment; and also the feeling that systematic antipyretic treatment, with its necessary accompaniments of constant temperature observations and cold baths, can be carried out properly only in hospitals. The antipyretic treatment of enteric fever has been more or less in use at the London Fever Hospital for two or three years, but has been more systematically carried out during the last fifteen months. It is thought that a brief account of the conclusions to which its adoption has led will not be uninteresting to the profession, and that an attempt to learn to what extent the results published by German writers on the subject are to be depended on will aid in enabling us to form a more correct estimate of the value of this method of treatment.

Anyone reading the papers of Brand, Jürgensen, and Liebermeister will be at once struck with the different rates

of mortality which have attended the same treatment in the hands of these authors. Several difficulties present themselves in an attempt to ascertain which rate is nearest the truth. Brand's experience relates to cases met with in private practice, while that of Jürgensen and Liebermeister relates to patients in hospital practice. Now, in Germany, many cases of continued high temperature, not due to a local lesion—cases concerning which there is not sufficient evidence to connect with any specific fever,—are classified as typhoid fever; while in England they are described as febricula or simple continued fever. It will be obvious that a much larger proportion of such cases is met with in private than in hospital practice, and this alone would account for a difference between the mortality among the patients of Brand and Jürgensen; they must therefore be eliminated from any statistics which are produced in favour of the antipyretic treatment.

A second difficulty is the varying death-rate of enteric fever in hospitals, under the same treatment, in different years. Thus, the rate of mortality of the London Fever Hospital has, during the last twenty-six years, fluctuated between 12 per cent. in 1857 and 26·7 per cent. in 1860, these rates being calculated on 214 and 94 cases respectively. The number of cases in 1860 is so small that a few deaths more or less would make a considerable alteration in the rate of mortality. But even when the number of cases is large, there is often a difference of three or four per cent. in successive years. For instance, in 1866 the mortality of 575 cases was 17·4 per cent.; and in the following year that of 378 cases was 14·6 per cent. If two series of consecutive years be taken, so as to give more than five hundred cases in each period on which to calculate the rate of mortality, a considerable difference will be found to exist between the two rates, although the treatment has been the same in each period. It is evident, therefore, that conclusions based on smaller figures are liable to be fallacious. It must also be remembered that the mortality from enteric fever is necessarily influenced by the period of illness at which patients come under treatment; and this should, if possible, be taken into consideration in examining the results of any line of treatment.

It is impossible here to enter minutely into all these points, and it therefore only remains to ascertain how far the conclusions of the Germans are affected by their want of care in the classification of cases of enteric fever.

There can be no doubt that febricula is included by Jürgensen among his enteric cases, for Liebermeister states that "Jürgensen includes under the milder forms all the cases in which the duration of the fever amounted to but sixteen days or less. The cases upon which his description is based began for the most part suddenly, so that the patient was enabled to give the day with certainty. This was in seventy-four out of eighty-seven patients, and all the cases in which the duration of the fever was only ten days commenced without exception in this way."

It can hardly be doubted that many of these patients were not suffering from enteric fever as we understand it in England. The suddenness of the attack agrees rather with our experience of the beginning of febricula than of enteric fever, while the short duration of the illness points in the same direction. Dr. Murchison states that of two hundred cases which recovered, and in which he was able to fix the commencement of the illness with tolerable certainty, the duration of the fever was from ten to fourteen days in seven cases only, whilst in the others it was over a fortnight. It must be remembered that Jürgensen's description is confined to mild cases, but it is probable that a portion of the cases in the following tables were of the same character, inasmuch as they came under treatment at a time when the diagnosis of enteric fever is necessarily liable to error. He divides his cases into two classes, as follows:—

Cases treated from 1850 to 1861.		From 1863 to 1866.
Contracted in hospital	23	 4
Ill 6 days previous to admission to hospital	66	 57
„ 7 to 15 days „ „ „	130	 75
„ 16 to 21 days „ „ „	7	 0
„ over 21 days „ „ „	2	 4
	228	140

In the London Fever Hospital, since Jan. 1st, 1876, the patients suffering from enteric fever were admitted as follows:—

Developed in hospital	1
Admitted during the first week	17
„ „ second week	47
„ „ third week	21
Ill over three weeks	14
	100

In Jürgensen's first table of 228 cases, 39 per cent. were admitted the first week, 57 per cent. in the second, and 3·9 per cent. after the end of the second week. In his second table 43·5 per cent. were admitted during the first week, 53·5 per cent. during the second, and 2·38 per cent. after the end of the second week. In the London Fever Hospital 18 per cent. only were admitted during the first week, 47 per cent. in the second, and 35 per cent. after the end of the second week. The fact that in England enteric-fever patients rarely take to their bed until late in the first week, and are not admitted to hospital until some days later, is evidently much opposed to Jürgensen's experience in Germany. It is probable, therefore, that some of his cases admitted during the first week were cases which in England would be described as febricula. In the two periods mentioned in Jürgensen's tables the patients were subjected to different treatments. From 1850–61 they were treated on the expectant plan; from 1863 to 1866 they were treated on the antipyretic plan. During the first period he had 330 cases, with 51 deaths, giving a mortality of 15·4 per cent.; during the second 160 cases, with 5 deaths, giving a mortality of 3·1 per cent. If, for the purpose of comparison, we take the rate of mortality of the London Fever Hospital during both these periods, we have for the first 2108 cases of enteric fever, and 905 of febricula, with 405 deaths, giving a mortality of 19·21 per cent. when calculated on the enteric cases alone, and 13·4 per cent. when febricula is included. For the second period there were 944 cases of enteric fever, and 324 of febricula, with 170 deaths, the mortality being 18 per cent. when reckoned on the enteric fever alone, and 13·4 per cent. when the febricula is included. The rate of mortality, therefore, in the London Fever Hospital during both these periods has been fairly constant, and the result has not been disturbed by the addition of cases of febricula. It is probable that the same constancy holds good in both periods with Jürgensen, and we have, therefore, a mortality of 13·4 per cent. among cases treated on the expectant plan to compare with Jürgensen's rates of 15·4 per cent. under expectant treatment, and 3·1 per cent. under antipyretic treatment, showing a very great reduction during the time the patients were treated antipyretically. It is evident, therefore, that the only objection that can be raised to Jürgensen's statistics is that the number of cases in his second period is too small to obviate all possibility of error, but he has, at any rate, clearly shown that a considerable reduction of mortality has attended the antipyretic treatment.

Brand's success has been even greater than Jürgensen's. Among 170 cases he had no deaths. This circumstance may to some extent be accounted for by the fact that his patients were mostly seen in private practice, mild cases being more often retained in their own houses than those more severe. But he has excluded from this number 17 whom he did not see until towards the close of their illness, and of these 4 died. It is impossible to form a correct idea of the proportion of cases of febricula to enteric fever in private practice, and his results are therefore of less value than those of Jürgensen.

Liebermeister's statistics published in his article on Typhoid Fever in "Ziemssen's Cyclopædia" are of the greatest value, inasmuch as he deals with a sufficiently large number of cases to exclude the errors connected with small figures. Of 1718 cases from 1843 to 1864, 469, or 27·3 per cent., died. Of 982 cases from the beginning of 1865 to Sept. 1866, under incomplete antipyretic treatment, 159, or 16·2 per cent., died. Of 1121 cases from Sept. 1866 to 1872, under systematic antipyretic treatment, 92, or 8·2 per cent., died.

The very high mortality of the first period is in excess of anything known in the London Fever Hospital during the last twenty-six years, but Liebermeister explains the high rate by stating that "before the year 1866 the term typhoid fever was somewhat restricted in its application, and some

of the lighter cases were not classified as such at all," but that "since 1865 the classification of the cases has been more uniform and rigid." The two latter rates of mortality are therefore comparable, and show a reduction of mortality under systematic antipyretic treatment to 8 per cent. He, however, admits that the mild cases are included in his last period, and adds that, if they were subtracted, there would be remaining 850 to 900 cases, with a mortality of 10 or 11 per cent. This is probably the lowest mortality which has yet been reached under antipyretic treatment. The experience of the London Fever Hospital has taught that the cases which die in the second week of enteric fever are not influenced by cold bathing, but that patients who under expectant treatment die after three or four weeks' illness can in nearly every case be saved by an early and systematic antipyretic treatment. The proportion which these cases bear to the whole number has been ascertained for one year only, 1871, the last year in which the number of deaths was more than 50. Of 53 patients who died in this year, 9 died in the second week, 12 in the third, 12 in the fourth, and 6 after the end of the fourth week. In 14 cases the date of attack was not recorded, and therefore the period of illness at the time of death could not be ascertained. These deaths occurred among 308 cases, the mortality being 17·2 per cent. If the number of patients who died after three weeks' illness were excluded, the mortality would be reduced to 11·3 per cent.

Liebermeister states that the deaths which have occurred under antipyretic treatment among his own patients are "to a great degree among those for whom no treatment could have done anything; some of them were brought into hospital in a desperate condition, some were very old people, and a particularly large number of them did not actually die of typhoid fever, but either of some other pre-existing disease, or of some complication or sequela only indirectly dependent on the typhoid." (Ziemssen's "Cyclopædia of Medicine.") Such cases as these will always be found in every hospital, and under all kinds of treatment; but even if these be excepted there are others for whom the antipyretic treatment will do little or nothing—patients who do not die from the effect of a continued high temperature, but who are killed by the poison of the fever, as directly as many are by the poison of typhus or scarlet fever. The most prominent symptom in these is not pyrexia, but high delirium, followed by complete prostration, failing heart, and early subsultus, the certain precursors of death. It is true that, as death approaches, the temperature rises to 108° or 109°, but this only occurs a few hours before the fatal result takes place. Here cold bathing is useless. Fortunately these cases only constitute but a portion of the total number who, without antipyretic treatment, die of enteric fever.

Of 105 cases admitted into the London Fever Hospital during the last fifteen months twelve have died, the mortality being 11·4 per cent. Of the twelve who died the first five were not treated antipyretically. Of the other seven Case 1 had been ill three weeks before admission, and died five days after from hæmorrhage; Case 2 had been ill more than three weeks before admission, and died five days after; Case 3 had been ill two weeks before admission, and died four days after; Case 4 had been ill two weeks before admission, and died four days after; Case 5 had been ill a fortnight before admission, and died four days after; Case 6 had been ill eight days before admission, and died thirty-seven days after, from hæmorrhage occurring during a relapse; Case 7 had been ill a week before admission, and died sixteen days after. It would not be reasonable to expect any favourable result under any treatment in the majority of these cases; two had been ill three weeks, and three for a fortnight, before admission, and only two lived for more than five days after. Among the remaining 93 were many severe cases, which, on admission, had every promise of having a fatal termination. All the worst of these were treated by cold bathing and quinine, and this treatment was followed by most satisfactory results. It is true that the number of cases is insufficient for the purpose of drawing infallible statistical conclusions of the value of the treatment, but as far as they go they appear to confirm the favourable conclusions we have arrived at, and it should be noted that the mortality at the London Fever Hospital during this period agrees closely with that of Liebermeister.

(To be concluded.)

A CASE OF

ACUTE YELLOW ATROPHY OF THE LIVER.

BY FREDERICK H. DALY, M.D.

ACUTE yellow atrophy of the liver is not often met with in practice, and the probable cause of the disease being tolerably clear renders the following case doubly interesting.

On the 30th of June, I was requested to visit Mrs. C——, married having six children, the youngest being three months old; she was still suckling, and the patient's age was thirty-eight years. I learned that for several days she had had slight jaundice, and been going to the surgery of a medical man, and taking medicine. I found her tongue coated, pulse 90, temperature 99·2°. There was no appetite; the bowels were constipated, the stools being pale, but not white; the urine was full of bile; the skin and conjunctivæ yellow, but not deeply so. No pain was complained of anywhere. The spirits were bad. No xanthopsia. I diagnosed the case to be catarrhal jaundice, carefully regulated the diet, and ordered a saline aperient.

The patient's husband informed me, on this occasion, that they had only just moved into the present house, which had been for a considerable time uninhabited, and that the cistern was in a most disgusting state. He said that he was certain his wife's illness arose from drinking water from the dirty cistern, as all the family had been more or less ill during the short time they had been in the house, suffering from sickness and diarrhœa. I saw the patient on July 1st and 2nd, and her state was exactly as I have above described; in other words, the case was going on as an ordinary attack of catarrhal jaundice. But on my visiting the patient on the morning of July 3rd the aspect of the case was entirely changed. I found that she had been delirious all night, and having muscular twitchings; that she passed her urine and motions unconsciously; the pulse was 140, and the temperature 104·6° F. The gums and tongue were covered with sordes, the breath having an abominable fetor. Acute yellow atrophy of the liver was the only disease which, to my mind, would explain these symptoms, but the most careful physical examination could detect no decrease of liver dulness to speak of. My partner, Dr. Gibbings, saw the patient with me during the day, and agreed that it was a case of acute yellow atrophy, but he also failed to make out any considerable diminution of liver dulness. Meeting Dr. Murchison during the same afternoon, I mentioned the case to him, and he immediately said, from my description of the symptoms, that he thought it was a case of acute yellow atrophy of the liver, most probably caused by the poisoned water of the foul cistern. He further explained that the decrease of liver dulness, although not very appreciable yet, would soon become marked, if the patient lived sufficiently long for it to take place.

The next morning (July 4th) the patient was in profound coma, and now the area of liver dulness was remarkably diminished; and on my second visit late the same evening, the liver shrinking was perfectly distinct and remarkable, the percussion sound being very clear over the entire hepatic region.

The patient died during the night.

There can be little doubt as to this having been a case of acute yellow atrophy of the liver, and I think also there is very little doubt as to the cause being blood-poisoning, from drinking polluted water. This is supported by the illness of the other members of the family, and again strengthened by this circumstance, that on the 3rd of July, one of the children in the house, aged seven years, became jaundiced, and was extremely ill for several days, but the jaundice being immediately noticed, the child was briskly purged several times, and she recovered. Possibly she escaped acute yellow atrophy because she was a child, for I find that Niemeyer says, "it never occurs in childhood." I think the jaundice in this case was due also to blood-poisoning, from the impure water. No post-mortem examination was allowed of the mother.

Queen's-road, Dalston.

THE

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

Session 1877.

THURSDAY, MAY 10TH.

THE annual meeting of the General Medical Council was commenced to-day, Dr. Acland, President, in the chair.

The minutes of the previous meeting having been read and confirmed,

Dr. HUMPHRY (in the temporary absence of Dr. Wood) intimated that the Executive Committee had, in pursuance of the powers conferred upon it, elected as registrar Mr. W. J. C. Miller, in the place of Dr. Hawkins, resigned.

Sir D. CORRIGAN complained that in the programme the motion of which he had given notice, with regard to the appointment of registrar, had been dissociated from the report of the Executive Committee on that subject, a proceeding which, he said, would in other cases be designated as a manœuvre or a trick. He wished to know whether it was intended to move the adoption of the report. If so, it would afford him an opportunity of bringing forward his motion as an amendment. He contended that the Executive Committee ought not to be content with merely stating the fact that they had done a certain thing, as to which the Council had nothing to do but bow its head in due submissiveness.

The PRESIDENT said, there being no precedent on which to act, he was in the hands of the Council on the point of order raised by Sir D. Corrigan. The Executive Committee, after considering the subject for some time, had come to the conclusion that it was best simply to state the fact of the registrar's election for the information of the Council, and thought it better not to initiate any discussion at present. In fact, the Council was not yet completed, a new member (Sir James Paget) not having taken his seat.

Dr. WOOD said that the Executive Committee had power to elect the registrar, and they only stated the fact to the Council with the view of introducing the gentleman elected. Sir D. Corrigan could not challenge the appointment; and he would suggest that the other business should be proceeded with according to the programme. Sir D. Corrigan would have an opportunity of bringing forward his motion at the proper time.

It was suggested that before the matter was further discussed it would be desirable that Sir James Paget should be introduced as the new representative of the Royal College of Surgeons of England, and that the President's address should be delivered. This course having been assented to, Sir J. Paget was introduced, and took his seat.

The PRESIDENT, in inaugurating the twenty-fourth session of the General Medical Council, made a defence of the *raison d'être* of the Council, pointing out its aims and objects, and the good which it had effected among the public in enabling it to distinguish between qualified and unqualified practitioners of the healing art. He then referred to the report on the subject of education received last session; a matter which, in consequence of its importance, was to receive precedence of all other subjects in the present session. Dr. Acland proceeded to pass in review the various questions to which the attention of the Executive had been called since the last meeting. Dealing lightly with the Vivisection Act, the Medical Act abolishing restrictions of sex was considered, and here the President pointed out the flaw in the measure, that it took no steps towards solving the problem whether it would be just to women and to the country to enable them to acquire a complete education for practice among their own sex without making dissections and being examined on the male body. Many would agree with the prediction that there are "rocks ahead" in connexion with the admission of women to the profession. The Medical Register next claimed attention, and especially the question raised last session by the refusal of the registrar to register a degree in medicine conferred *honoris causâ* by the Queen's University, Ireland. It is well known that a few such degrees were in former years placed on the Register. With a view to weaken arguments drawn from these apparent precedents, Dr. Acland stated that he himself, together with the late President, had jointly lodged an application to the Council for the removal of the degrees they had obtained from Trinity College, Dublin, in 1869. The difficulties in connexion with the relation of the Board of Trade to Canadian surgeons employed on ships were explained, after which Dr. Acland took up the consideration of the French Medical Bill intended to restrict the privileges hitherto accorded to English practitioners in France. It was suggested that a conference might readily decide the terms of an international law to the satisfaction of all parties, and the recent action of the London College of Physicians with regard to foreign practitioners furnished a practical initiative for reciprocal usage. A statement was made that the Executive Committee would lay before the Council a short report on a point of law regarding the restoration of names to the Register, after which the judicial functions of the Council were discussed. Under the head of Legislation, many important points were touched—viz., the alleged incompleteness of the Medical Act in not providing for the prosecution of offenders, the Bill for the better instruction of midwives, the Bill for the purpose of constituting a new class of medical officers who will be entitled to append after their names the letters C.M.B. (Civil Medical Board), and the Conjoint Scheme for England prepared with the concurrence of every licensing body in the country. The Government grant for private research was alluded to, and a statement made that the applications for the grant far exceeded its amount. Only a small portion was appropriated to subjects directly connected with medicine. Dr. Acland concluded his address as follows:—

"There remains then the great subject of the education of the student of medicine. Whether the Council is ripe for any special settlement of that question it would be presumptuous to say. Nor is this the occasion to inquire. No discussion within the Council, no criticisms without, will or can alter the fact that in harmonising in their due proportion the general, the scientific, the moral, and the physical training of the student consists the best education. So it has been from Plato and Hippocrates to the time of Milton and Locke; so it must remain. Do the methods change? Are the requirements of a youth altered? Have the schools, the hospitals, and the universities kept pace with pædagogic knowledge? This is greatly to be doubted. The German educator would answer unequivocally that the arrangements for teaching in England are imperfect, or at least unsystematic. The Englishman would reply that, at all events, they have been made the subject of discussion, of inquiry, and report till the shelves groan beneath the load of the result. Are we in our department satisfied? Even in the metropolis is no revision required? It is not for your President to answer these questions. A fund of knowledge and opinion is in our hands, whether derived from various Royal Commissions on general and on scientific training, or from the reports and answers given to this Council by universities, medical corporations, medical and scientific experts, and the Medical Teachers' Association of the metropolis. The latest conclusions suggested for your consideration are to be found in a report by Professor Humphry about to be laid on the table and prepared by your desire. It is not likely that the report will contradict an often-expressed opinion that the foundation of the 'mens medica' is laid in a liberal education, or that the corollary drawn by the Council from that conviction will be overthrown—viz., that the great educational bodies are the fittest judges of the course and standard of liberal culture. ..... The examinations, which we are bound by the Medical Act to supervise, are, no doubt, the ultimate test of the attainments of students. But they are no less an expression of the slowly maturing convictions of the nation as to what is 'the best and noblest way' of discipline, culture, and knowledge in preparation for our noble profession."

Dr. HUMPHRY again stated the fact of Mr. Miller's appointment as registrar, and said he did not propose to make a motion on the subject.

Dr. A. SMITH, as a member of the Executive Committee, moved that the statement of the Committee be received and entered on the Minutes.

Dr. STORRAR seconded the motion.

Sir D. CORRIGAN moved as an amendment,—"That this Council cannot give their unqualified approval to the report, inasmuch as the proceeding of the Executive Committee in selecting for the appointment of registrar to the General Medical Council and to the Branch Council for England a gentleman who is not a member of the medical profession, is contrary to the spirit and intention of the Medical Act of 1858, and has not given satisfaction to members of this Council or to the profession generally." He said he had no personal motive in bringing the matter forward. He contended that the spirit of the Act had been departed from by the Executive Committee in going outside the circle of the profession, which included upwards of 22,000 registered practitioners, amongst whom someone surely could have been found qualified for the office. It was true that the Medical Act did not expressly declare that the registrar must be a medical man, but that was evidently its spirit and intention. A suggestion had once been made in conversation that it might be advisable to elect as president of the Council a person not a member of the profession, but it had never received a moment's serious consideration from the Council, showing what its view was of the spirit and intention of the Act. It was not necessary, according to the letter of the Act, that the president or any member of the Council should be a registered practitioner or a medical practitioner at all; but not a single university or licensing body had ever elected for its representative any but a registered member of the medical profession. According to the Act, a member must be "qualified," but he need not be registered. The Crown and the Privy Council were entitled to nominate members of the Medical Council, but from the year 1858 to the present time, although there had been repeated vacancies to be filled, no instance had occurred in which any but a registered medical man had been nominated. The Branch Councils had always elected registered medical men as their registrars, thereby recognising and acting upon the spirit and intention of the Act. The Executive Committee had offered no defence for its action, practically concealing from the public what it had done. Their statement was, that the registrar appointed was a most accomplished man, and well fitted for the office; but would it be said that there was not one among the whole body of medical practitioners who was competent to undertake it? He was a member of the National Board of Ireland, and on a recent occasion, when an office was vacant, great efforts were made to introduce a person outside the educational circle, but it was decided that they would not travel out of their own department so long as they could find a person within it who was sufficiently competent for the office. If the Admiralty wanted a man to navigate a ship, and if M. Leverrier and Sir Alexander McClintock were candidates, would they think of electing the former simply because he was an eminent astronomer? In another public body in Ireland connected with local government it was rumoured that it was the intention of the Government to appoint as a commissioner a lawyer instead of a medical man. A representation was made to the Lord Lieutenant, in whom the appointment rested, and although it was not expressed in the Act, as the office had previously been filled by a medical man, the Lord Lieutenant yielded to the representation. Did the University of Oxford, in appointing its registrar, open the doors to the wide world? No; the registrar of that University must be a Master or a Bachelor of Arts; and no difficulty had ever been experienced in finding a suitable person for the office. He regretted that the President of the Council should have departed from the practice of his own University. In the case of the King and Queen's College of Physicians, Ireland, it was necessary that the registrar should be one of the fellows of the College, of whom there were not more than sixty. But the most humiliating consideration was, that the salary of the registrar was payable, not out of public funds, but out of the pockets of young men entering the profession, many of whom could ill afford it. There was a considerable interval between the resignation of Dr. Hawkins and the appointment of his successor, and he complained that the members of the Council should have been kept so long in the dark. It was said that there had only been twenty-one applications, and the suggestion was that the members of the profession were so profitably engaged in their calling that they would not think £500 a year worth asking for. Could anyone believe such a reason as that? He knew dozens and dozens of men in the profession, graduates of the universities and distinguished members of colleges, who would be glad to get such an appointment. He believed that another reason might be assigned. It was generally understood that there was no use in anyone applying except a resident London man. The officer appointed was also to be registrar of the Branch Council of England. It was suggested that the English members of the Executive Committee would have personal knowledge of the applicants, and would be the fittest judges of their capabilities. If he had thought that the Committee would have kept the Council in the dark, and gone outside the circle of the profession, he would have hesitated to confer upon it the power of election.

Dr. STORRAR said that Sir D. Corrigan's proposal was not an amendment on the motion.

The amendment was not seconded, and was not, therefore, put. The original motion was then put and carried. At the request of Sir D. Corrigan the names and numbers were taken. The only member voting against the motion was Sir D. Corrigan. The President and Dr. Pyle did not vote.

The Business and Finance Committee having been appointed,

Dr. HUMPHRY moved: "That having regard to the good spirit in which the visitation of examinations, and the reports of the visitors, had been generally received by the licensing bodies, and to the improvements which have been made in all, or nearly all, the examinations for admission to the Register, it is desirable not to enter now into a discussion on the reports of the Committee on the Visitations of Examinations and the answers of the licensing bodies, but to send copies of the report of 1876 to each of the licensing bodies for consideration." He said it would not be thought that he wished to give the go-by to the report of the Committee (in the drawing up of which he had himself had no small share) or to interfere in any way with the work of the visitations of examinations. That work, indeed, he regarded as one of the most effective works the Council had undertaken, and he had felt it no small privilege to have taken a considerable share in it, and it was rather because of the good that the work had done, and was still doing, that he thought it would be useless, and probably mischievous, for the questions connected with it to be debated at the present time by the Council. The visitations had really done the greater part of the work that they were capable of doing. In virtue of them almost all the examinations in the country had been considerably modified, and that not in consequence of any pressure on the part of the Council upon the licensing bodies, but as the mere quiet effect of the report of the visitors being sent down to them for consideration. *Solvitur ambulando* was the best method of solution, and that had taken place in the present instance to so large an extent that there really remained not very much to be done to bring the examinations into exact conformity with the wishes of the visitors. Another reason for the course he proposed was that of those who took part in drawing up the reports two members had died and one had resigned. One of the questions dealt with, and left for the consideration of the Council, was that the candidates were not examined by some of the corporations in all the subjects required by the Council; but that defect had been partially remedied between the dates of the first and the second report. At the time of the second report there were only four bodies—the College of Surgeons of England, the Society of Apothecaries of London, the King and Queen's College of Physicians of Ireland, and College of Surgeons, Ireland— in which the examination was not complete. Since that report the two largest of those bodies, in which it was most important that the correction should take place—the College of Surgeons of England and the Society of Apothecaries—had been endeavouring, and he hoped with success, to overcome the difficulty by combining to form one examination. The other two also had, he believed, endeavoured more or less to overcome the difficulty; so that the question scarcely remained to be discussed. Another point was the conduct of clinical medical and clinical surgical examinations. When, however, it was borne in mind that the whole question of the examination of the patient was a recent one, and that the best plan of doing it had scarcely been formulated, he thought it far better for

the present that the separate bodies should themselves decide what they thought best, and that no pressure should be put upon them. The practice of allowing candidates to pass only one portion of their examination had also undergone some diminution. There were still instances in which a candidate might be rejected in medicine, or in surgery, and be allowed to present himself again; but he knew of no instances in which a division was allowed in regard to other subjects. The question of visiting the medical schools was one which would be brought forward by a motion at a later period. That, however, was a work that the Council had no authority to carry out, and he brought it forward fully aware that it was open to that objection. He thought, for the reasons he had stated, that it would be better to send down the reports of the visitors to the different licensing bodies, who would see how far they thought it worth while to modify their examinations in accordance with them. When the visitations were again instituted there would have been time for the bodies to consider the question fully; and then would be the time for the Council to exercise pressure where it might be thought desirable.

Dr. SMITH inquired whether he understood Dr. Humphry to say that the examination of the King and Queen's College of Physicians of Ireland was defective.

Dr. HUMPHRY said there was at the time of the report no examination in surgery.

Dr. SMITH said he did not admit that that was a defect. The College had no power to examine in surgery, and never would have.

Mr. LISTER agreed with Dr. Humphry that a great deal of good had been done by visitation, the most important function exercised by the Council; but he did not think that nearly all that was required had been accomplished. For himself he should desire to see another visitation this year.

Dr. SMITH said it had been suggested that the visitations should be renewed.

Dr. WOOD concurred in what had been said about visitations; he was satisfied that they had been the means of conferring the greatest benefit upon the profession. But there was a danger of pushing on too fast. The Council had often been twitted with not pushing on fast enough, but the best results were not obtained by undue haste. Much more would be effected by the moral influence of the Council than by any attempt to goad the bodies into conformity with its wishes. He thought it would be premature to resume the visitations this year. He could say for the bodies with which he was acquainted that they were every day endeavouring to improve their examinations. They had received the suggestions of the visitors with every consideration; and though they did not feel bound to follow all their recommendations, it would be found, when the next visitations were made in Scotland, many of the blots that had been pointed out would have been removed.

Dr. Humphry's motion was then put and carried.

Dr. WOOD read the following report from the Executive Committee:—"The Executive Committee, as was remitted to them by the Council, have obtained from the licensing bodies answers in regard to the results of professional examinations and the deficiencies in preliminary education, which they now submit to the Council. The committee requested Dr. Humphry, who acted as Chairman of Committee on Results, to prepare a report on these answers. This report they have also now to submit for the consideration of the Council. In addition, Dr. Aquilla Smith has furnished the committee with an analysis of the annual returns of the final examinations furnished to the Council for a series of years, which they also submit to the Council. The committee recommend that these documents should be entered on the Minutes, and referred to the committee on Recommendations of last year, which should, for that purpose, be reappointed, and requested to report to the Council with all convenient speed." He thought that the committee had given a very good recommendation, which he hoped the Council would be inclined to adopt.

Dr. FLEMING objected to unadopted reports being entered on the Minutes, as involving a great deal of unnecessary printing and subsequent complication, owing to the reports being altered before they were adopted.

Mr. SIMON said that the documents in question were in their final state, and could only be entered on the Minutes in their present form for the consideration of the Council.

It was resolved to print the report of the committee, together with the documents specified therein.

Dr. WOOD proposed that the documents be referred to the Committee on Recommendations of last year, which should, for that purpose, be reappointed, and requested to report to the Council with all convenient speed.

Mr. SIMON seconded the motion.

Mr. MACNAMARA asked what object could be gained by referring the documents to the committee. There were some things, he said, that had been very hastily referred to which should be considered by the entire Council, and some things to which he wished to offer, on behalf of his College, the most strenuous objection. The matter was a most serious one, and of great importance, at all events, to the surgical profession, and he hoped that it would not be referred to a committee that might have come to foregone conclusions respecting it. He suggested that the matter should be taken into consideration at once by the Council.

Mr. TURNER said he was about to propose an amendment of a similar character. He believed that the Council was in a position at once to enter into the discussion without referring the matter to a committee. The admirable report of Dr. Humphry, and the recommendations which he had made, had put the matter in so precise and clear a way that there could be no necessity for a reference to the committee. He begged to propose, "That the Council do not refer Dr. Humphry's report to the Executive Committee, together with the documents specified therein, to the Committee on Recommendations, but at once proceed to discuss it."

Mr. MACNAMARA said he would withdraw his own amendment, and second that of Mr. Turner. He suggested that the report should be discussed on the basis of Dr. Humphry's recommendations, which provided a key to the whole matter.

Mr. LISTER said he was not prepared to enter at once into a discussion on the extremely important documents in question, and he suggested that if the matter were not referred to the committee it might be discussed by the Council at the next sitting.

Mr. TURNER said he had no objection to that course.

After a short discussion, it was resolved that the subject should be discussed as the first business on Saturday.

Mr. SIMON moved, "That a committee be appointed with reference to amendments (if any) which may have to be recommended in the Medical Acts, and that the communications received with reference to foreign, colonial, and Indian degrees be referred to this committee for consideration."

Dr. HUMPHRY seconded the motion, which was agreed to, and the committee was nominated.

Mr. SIMON then drew attention to the provisions of Russell Gurney's Act as compared with the recommendations made by the Council at its last session to the Government with reference to the Bill then before Parliament. He said it would be remembered that last year the Bill on which Russell Gurney's Act was founded was referred with other Bills to a committee, that the committee took considerable pains with it, that the Council did the same, and that certain recommendations in the way of amendments were addressed by the Council to the Government. One suggestion was that it should be quite clear, that the exercise of the power given by the Act should be optional with the authorities, and that if the authorities chose to exercise that option in favour of the admission of women, they should not, except at the further discretion of the licensing body, be admitted to corporate privileges. The words of the Council were very precise: "The Council are of opinion that the qualifications conferred should not, except at the further discretion of the bodies, carry with them any right to take part in the government of the universities or corporations, or any right or privilege beyond that of registration with a view to practise the medical profession." The Council was very clear in its opinion upon the subject, and felt that it was the only condition under which the Bill was likely to be acceptable to any or many of the bodies. That recommendation went to the Government, and it was understood that it was accepted. The Bill had become law, but instead of the proviso that was expected to appear in it, there was one of a very different kind. He did not speak as a lawyer, but only as possessing the ordinary accomplishment of being able to read his mother tongue, and as far as he could understand the proviso it gave no effect whatever to the recommendation of the Council. The words were:

"That no person who, but for this Act, would not have been entitled to register, shall, by reason of registration, be entitled to take part in the government, management, or proceedings of the universities or corporations mentioned in the Medical Act." What the bodies wanted to be guarded against was not the risk that women would, because of registration, become corporators, but that they would become so because of their qualifications. He believed that there were bodies which, on account of that difficulty, had declined to examine women, and thus the object of the Act was defeated by the insufficiency of the proviso. He begged to move "That it be an instruction to the Medical Acts Committee to consider the legal bearing of the provisions as they stand." The committee would, no doubt, have the advantage of Mr. Ouvry's opinion on the legal bearing of the case. He knew that the opinion he had expressed was shared by many others, and that it had proved an obstacle to the working of the Act.

Dr. STORRAR, in seconding the motion, said that the University of London had consulted the law officers of the Crown on the question, and he believed their opinion was, that in the event of women being admitted to degrees of the University, they would not become members of the body corporate. He would, however, take care that the opinions of counsel should be laid before the committee.

The motion was agreed to.

The PRESIDENT, referring to an entry on the programme respecting the recovery of penalties under Clause 42 of the Medical Act, said that the papers on the subject were very numerous, that it was not desirable to enter into the subject in the absence of Mr. Ouvry, and that it would be convenient to refer the matter to the Medical Acts Committee.

Dr. PITMAN moved a resolution to that effect. In the Act of 1858, he said, certain penalties were recoverable, and it was provided that any sums of money arising therefrom should be paid to the treasurer of the Medical Council; but there appeared to be local Acts under which the penalties were claimed by the local authorities, so that the intentions of the Medical Act could not be carried out. The matter had been referred to the Branch Councils, and legal opinions had been obtained which it would be an advantage to lay before the committee.

The motion was agreed to.

Dr. WOOD brought forward a table showing the results of professional examinations for degrees by diplomas and licences granted in 1876 by the medical licensing bodies in Schedule A of the Medical Act, and moved that it be entered on the programme. The table, he said, contained some very serious results, the number of rejections being enormous.

Dr. STORRAR asked whether the number of rejections had absolutely diminished the number of men coming on to the Register. ("No.") Then there need be no grumbling about the rejections. (Hear, hear.) People had absolutely complained that the supplies to the profession were being stopped in consequence of the rejections.

The motion was adopted.

Dr. HUMPHRY moved the adoption of the following report by the Executive Committee on the standing orders. "The registrar having called the attention of the committee to some discrepancies, repetitions, and errors of arrangement in the standing orders, the Executive Committee have deemed it their duty to prepare a revised edition of the standing orders, which they now submit to the Council, and in which they have to state that no material alterations have been made."

Dr. SMITH called attention to the inconveniences arising from additional qualifications not being entered on the Register in which the original qualification was entered, and moved as an additional standing order:—"In all cases in which additional qualifications are to be registered, they must be entered in the local register in which the practitioner was first registered."

Dr. WOOD said that a legal opinion had been obtained from Mr. Bowen to the effect that the requisition to insert additional qualifications might be addressed either to the branch registrar who entered the original qualification or to the general registrar.

Mr. MACNAMARA seconded the proposal of Dr. Smith, which was put and rejected.

The report of the Executive Committee was then adopted, and the Council adjourned.

FRIDAY, MAY 11TH.

The PRESIDENT, in answer to Mr. Turner, stated that he held in his hand a printed copy of the General Index to the first ten volumes of the Minutes referred by the Council, June 22nd, 1875, to the Executive Committee for preparation; but it still required some revision and correction. Dr. Henry, to whom its preparation had been entrusted, had bestowed great labour upon it, and had promised to complete the corrections as soon as possible.

An application was received from Dr. Richard Eustace, for the registration of his honorary degree of Doctor of Medicine conferred upon him by the Queen's University of Ireland; and several documents of some length were read upon the subject. It appeared that an application was previously made to the registrar to register Dr. Eustace's honorary degree in addition to a surgical degree granted by the College of Surgeons of England. Mr. C. Bowen had been consulted on the subject, and had given the following opinion:—"I am of opinion that the registrar is not bound to register Mr. Eustace's honorary degree. Mr. Eustace is not a doctor of medicine of the Queen's University, but an honorary doctor only; he does not therefore possess one of the qualifications described in Schedule A to the Medical Act; and I further think that the title of honorary doctor is not a medical title, diploma, or qualification within Section 27 of the Act. It appears to me to be an academical distinction and nothing more, at all events so far as regards the purposes of the Medical Act. I think that Sections 18—23 of the Act show the intention of the Legislature to have been that the qualifications mentioned in Section 15 should be real and not honorary. I think it is a sufficient answer to the claim made, that Mr. Eustace is not a doctor of the University but an honorary doctor only." The King and Queen's University thereupon submitted a case for the opinion of the law officers of the Crown in Ireland. This document set forth the various grounds on which the degree in question had been conferred by the Senate of the University—viz. (1), the award of the Gilbert Blane medal 1875. (2), twenty-one years' service as assistant surgeon in H.M.S. *Monarch* during the Russian war in the Baltic, Pacific, Kamschatka (awarded medal). (3) Promoted surgeon 1862. Served as surgeon of H.M.S. *Cormorant* on China station, 1862–66; two years as surgeon of *Satellite* on Pacific station; on Gold Coast during Ashantee war (awarded medal). Thanks of Admiralty for care of wounded in troop ship home from Gold Coast. Specially promoted staff-surgeon in 1874. At present fleet-surgeon on board H.M.S. *Achilles*. The degree was "for eminent attainments in any branch of knowledge or in the public service." The case stated that for eighteen years the honorary degrees in medicine granted by the University had been inserted in the Register, and gave a list of eminent persons on whom they had been conferred, including Dr. Acland, President of the Medical Council, and Dr. Paget, late President. The case submitted that throughout the Medical Act there was no power given to the registrar to exclude from the Register the honorary degree of any university; that there could be no doubt that Dr. Eustace was entitled to the qualification; that the registrar had practically usurped the functions of the Privy Council under Clause 21; that he had formerly, acting on Mr. Bowen's opinion, refused to register the licence in midwifery, which, however, was subsequently inserted on the threat of a mandamus and an action for damages; and that a grievous injury had been done to the University by the refusal to register its honorary medical degree. The opinion of the law officers of the Crown in Ireland upon the case submitted was as follows:—"Without expressing any opinion upon the question whether a degree of doctor of medicine conferred *honoris causâ* entitles the holder to have it registered as a qualification under Section 15 of the Medical Act, we are of opinion that Dr. Eustace, being already registered by an unquestioned qualification, is entitled to have his honorary degree entered on the Medical Register either as a 'medical title' under Section 27, or as a 'higher degree' under Section 30; and we are confirmed in this opinion by the form of register prescribed by Schedule D of the Act, which distinguishes the 'qualification' from the 'title' of each registered practitioner. Any proceeding to enforce the insertion of the degree upon the Register must be taken by or in the name of the person aggrieved by the omission, and

should be taken upon his own responsibility. The Queen's University may, with propriety, urge their views upon the consideration of the Medical Council; but we cannot advise them to institute any legal proceeding.—ED. GIBSON, GERALD FITZGIBBON.—March 31, 1877."

On the suggestion by the PRESIDENT that Mr. Ouvry, the solicitor of the Council, who was present, should advise the members what course to pursue under the circumstances,

Sir D. CORRIGAN protested against any oral statement being made by Mr. Ouvry, and urged that his opinion and advice should be given in writing. It was, he contended, unfair to hear a legal statement on one side, in the nature of a prosecution, without giving the other side an opportunity of being heard by counsel.

Dr. STORRAR was astonished at Sir D. Corrigan's suggestion. Mr. Ouvry was the legal adviser of the Council, and it would be strange indeed if they could not hear his opinion.

Dr. QUAIN said that Mr. Ouvry had no "side" to take, and his opinion might possibly be in favour of the contention of the University.

The PRESIDENT thought it was essential that Mr. Ouvry should be heard upon the question. The President and the registrar had nothing to do but to lay all the facts and documents before the Council, which they had done. Unless Mr. Ouvry's advice were given, he did not see how the Council could proceed in the matter.

After some further discussion as to whether Mr. Ouvry should be heard, the question was, on the motion of Mr. Simon, decided in the affirmative.

Mr. OUVRY then said he should be sorry if the question were regarded as a personal one. There was no reflection whatever on the character of Dr. Eustace, whose acquirements no doubt entitled him to any honour that could be given him; but the question to be considered was whether an honorary degree was a qualification that could be entered on the Register. The case submitted by the University stated that there was no power given to the registrar to exclude the honorary degree of any university. Clause 30 stated that "every person registered under this Act who may have obtained a higher degree or qualification other than the qualification in respect of which he may have been registered shall be entitled to have such higher degree or additional qualification inserted in the Register, in substitution for or in addition to the qualification previously registered, on payment of such fee as the Council may appoint." It would be seen that a distinction was drawn between a "higher degree" and a "qualification." The higher degree was to be entered in substitution for a previous lower degree; whereas the additional qualification was to be added to the previous qualification. A person could not have a higher degree unless he had possessed some lower one. Clause 26, which was relied upon by the University, stated that no qualification should be entered unless the registrar was satisfied by proper evidence that the claimant was entitled to it; and it was urged that such evidence was laid before the registrar. The question, however, was whether the degree was a "qualification;" so that nothing turned upon that section. The idea that the registrar had usurped the functions of the Privy Council was entirely out of the question, the clauses cited having reference to quite a different matter. The statement in the case submitted by the University, that the licence for midwifery had been registered on the threat of a mandamus and action, was not accurate. Mr. Bowen, whose opinion was said to have been acted upon, was not then (in 1859) called to the bar. The opinion in question he held in his hand, and was signed by Lord Cairns and Sir Arthur Hobhouse, and was in favour of the registration. The Council, therefore, did not act upon any threat of legal proceedings. It would be observed that the law officers of the Crown in Ireland did not express any opinion on the main question, but thought that Dr. Eustace, being already registered by an unquestioned qualification, was entitled to have his honorary degree entered on the Register; and they were "confirmed in this opinion by the form of the register prescribed by Schedule D." It was unfortunate that in stating the case the University had not informed the law officers of the Crown that Schedule D had been repealed. The law officers did not say that the honorary degree could be registered as a qualification under the 15th Section, which was the main section for that purpose. He thought that Mr. Bowen's opinion was unquestionably correct.

Mr. MACNAMARA asked whether the opinion of Lord Cairns with regard to the midwifery qualification was before or after the threat of the mandamus. Was it not true that after the threat the opinion was obtained, and it was found that the Council was bound to register?

Dr. SMITH said that Mr. Ouvry's statement was not correct. The fact was that in 1859 the names of forty-seven licentiates in midwifery had been forwarded to the registrar for England; they were registered, but the Council, at the instance, he believed, of Dr. Storrar, ordered the names to be erased. After some legal opinions had been taken in Ireland, notice was sent to Dr. Hawkins, the registrar, that if the names were not restored within twenty-four hours, forty-seven actions would be instituted against him; and within that time the names were restored. The Council got into a fright, and found out that they had been in the wrong.

Mr. OUVRY said the dates were these: the opinion of Lord Cairns and Sir A. Hobhouse was dated May 20th, 1859; and the letter threatening to bring the actions and apply for a mandamus was not dated till eight days later—viz., May 28th.

Mr. MACNAMARA asked how it was that Dr. Eustace had been refused registration, seeing that honorary degrees had been previously received.

The PRESIDENT said that when the application was received, the registrar consulted him on the subject, feeling some misgiving on the ground of the degree being called an honorary one. He (the President) pointed out that such degrees had been registered before. Dr. Hawkins then produced documents from Trinity College, Dublin, showing that when the degrees arrived at the London office they were certified to without any statement as to their being honorary, and on that ground the registrar stated that he thought he was bound to register them; but when it was said that Dr. Eustace's degree was *honoris causâ* he had doubts about the matter. He (the President), finding nothing in the Act to authorise the registering of such a degree, directed the registrar to obtain the opinion of counsel, which was accordingly done. It was now for the Council to decide what course should be adopted.

Sir W. GULL moved,—"That the documents relating to the registration of the honorary degree of M.D. of the Queen's University in Ireland, conferred on Richard Eustace, Esq., having been read, and the advice of the solicitor of the Council having been heard, it is the opinion of the Council that the degree in question cannot be registered."

Dr. ROLLESTON seconded the motion.

Sir D. CORRIGAN said he could not imagine a more extraordinary proceeding than that which had been adopted in allowing Mr. Ouvry, who was not a member of the bar, to criticise the opinion of the law officers of the Crown in Ireland. In common fairness the question ought, under the circumstances, to have been submitted to some eminent members of the bar in England. It was absurd to say that no imputation was cast upon Dr. Eustace, who could not hold a public office in Ireland without having both a medical and a surgical qualification. This was not a common sense proceeding. When the opinion of the law officers of the Crown in Ireland was received, the Council ought to have obtained the opinion of the law officers of the Crown in England; but they had not done so, because they feared that one would have confirmed the other. It was said that there was no proof of Dr. Eustace possessing medical knowledge—an absurd assumption in the face of the medical honours received by that gentleman, and of his distinguished services in the navy. He should be ashamed of the Council if it assented to Sir W. Gull's proposal. It was really too absurd. There would be a disgrace attaching to the refusal, but the disgrace would belong to the Council, and not to Dr. Eustace. The refusal was the more strange after the number of licences that had been registered from the College of Physicians, Edinburgh, given without any examination at all. It was stated that similar degrees were registered because the registrar did not know that they were honorary; but in the case of the distinguished persons whose names had been mentioned, he must have known that the degrees were of that character. The reason for refusal in the present instance was simply because the diploma told the plain truth, and stated that the degree was granted *honoris causâ*. With regard to the Queen's University, a threat had been made to bring that body before the

Privy Council and get it disfranchised; but he had dared the Council to take that course, and Dr. Storrar, who brought the matter forward, had never since proposed to carry out the resolution though challenged to do so. He would not advise Dr. Eustace to trouble himself about the refusal of the Council to register his degree. The circumstance, he believed, would not interfere with his promotion; indeed it ought to expedite it. He would not even propose an amendment, but would simply negative the motion.

Mr. TURNER said that several members of the Council shared his opinion that the matter was not yet ripe for decision. Two conflicting opinions had been obtained. With regard to the opinion of the law officers of the Crown in Ireland, it had been pointed out that to some extent it had been based upon an error—viz., the assumption that Schedule D still existed. On the other hand there was the undoubted fact that such degrees had been registered. The ground for the refusal in the present instance was simply that the degree came with the words *honoris causâ* attached to it. But for those words it would have been registered like the others. It was, therefore, important that further light should be thrown on the powers of the Council. Mr. Ouvry had suggested the "higher degree" could not be substituted in the present case, because Dr. Eustace had not a lower degree; but it would be observed that the higher degree could be inserted not only as a substitution for, but in addition to, the qualification previously registered, and Dr. Eustace's friends argued that his honorary degree could be taken as an addition. He moved as an amendment that the solicitor of the Council be requested to obtain the opinion of the law officers of the Crown in England as to the power of the Council to register Dr. Eustace's degree.

Dr. QUAIN seconded the motion. He said if one university could give an honorary degree which could be registered another might do the same, and the degree might be given without any medical knowledge whatever, and in that case the Register would be falsified. He had implicit confidence in Mr. Ouvry's opinion, but he thought it would be more satisfactory to have further advice.

Mr. MACNAMARA thought it would be best to meet the motion with a direct negative. Legal opinions were really of little value in deciding legal questions. (Laughter.) The question at issue was one of the simple construction of the English language, and it was a poor compliment to the Council to suppose that it could not accomplish the task. The matter should be decided at once, because it was evident that the Council had the power to register the degree. It was contended that the degree was no guarantee that Dr. Eustace possessed the necessary medical qualification; but he maintained that the Act contemplated the registration of such degrees, as shown by Clause 15. The term "higher degree" in Clause 30 he thought pointed to an honorary degree, a distinction being drawn between it and a "qualification." Until the decision of the Court of Queen's Bench or the Court of Appeal was obtained, it could not be said that the legal point had been settled. Let such a decision be obtained, but no more "opinions" were necessary.

Dr. ROLLESTON said that the question was a purely technical one. Schedule D, which contained certain honorary titles, had been repealed. All importation of feeling in the matter was out of place. It would be found in Vol. I of the Minutes of the Council that a motion had been made by Sir D. Corrigan, that any degree or licence obtained since the passing of the Medical Act without examination ought not to be placed upon the Register, which was directly opposed to the contention of Sir D. Corrigan on the present occasion. No doubt Dr. Eustace was a very deserving officer, but that was beside the question at issue. Honorary degrees of the universities were not given where they could be used for the purposes of professional advancement, but were rather conferred on persons who would do honour to the body conferring them.

Sir D. CORRIGAN said that the resolution which he had proposed in 1863, referred to by Dr. Rolleston, had distinct reference to the proceedings of the College of Physicians of Edinburgh in passing so many candidates without examination.

Mr. LISTER said the Council had only to administer the law as it stood. The fellowship of the College of Surgeons of Edinburgh was given by ballot, according to the charter, without examination; and it was not necessary that the person receiving it should be a member of the College at all (he must be a member of some College of Surgeons); yet the degree, which was an honorary one, was regularly entered on the Register. He thought, if there was a probability of any alteration being made in the Medical Act, it would be better to follow the custom hitherto prevailing; and when the alteration was made there would be no more objection to registering an honorary M.D. degree than to the registration of an honorary fellowship. If further opinions were obtained it would be attended with more expense, and perhaps the question would not be settled.

Mr. SIMON opposed the amendment, and said he was ready to give effect at once to Mr. Ouvry's opinion. The only absolute settlement of the question would be a decision of a court of justice; and no good would be accomplished by multiplying legal opinions.

Dr. HUMPHRY said that the registrable titles were stated in Schedule A of the Act, and in that schedule there was no mention whatever of honorary titles. It was a plain matter of common sense, and required no legal acumen to decide it; he, therefore, thought it desirable to act at once on Mr. Ouvry's opinion. That gentleman knew more of the Act perhaps than anyone else, and the Council may safely act upon his advice.

Dr. WOOD thought it would be rash on the part of the Council to act upon the opinions as they stood, and that it ought to seek the highest opinions that could be obtained. If the law officers of the Crown were of opinion that honorary degrees could not be registered, any persons who felt aggrieved could apply for a mandamus, and have the matter argued in the Court of Queen's Bench.

Dr. SMITH wished to call attention to the fact that the midwifery qualification was registered, notwithstanding that it was not mentioned in the Act.

Dr. HUMPHRY said that the holder of that qualification was included in the word "licentiate."

Dr. HALDANE, referring to the allusion made by Sir D. Corrigan with regard to the College of Physicians, Edinburgh, said it would appear from the carrying of the amendment by Dr. Alexander Wood, that the College was not so bad as was represented.

Dr. STORRAR thought that upon such a subject the Council should not be too closely divided. He therefore supported the view recommended by the amendment.

Sir W. GULL said that if honorary degrees were to be received, the Register would be a fantastical one, and the Council might as well be given up altogether. It was not known how honorary degrees were conferred; and now, after so many years, it would be most ridiculous to come to a resolution that the Council had not understood the very intentions and purpose of the Legislature. It was too late in the day to raise such a question, and it involved an unnecessary waste of time.

The PRESIDENT then read the resolution, and Sir D. CORRIGAN called attention to the fact that the title "Dr." was omitted from Dr. Eustace's name.

Mr. SIMON said that the Council ought to be careful how it used the title. If it were introduced into the resolution it ought to be with the qualification "honorary."

After some discussion on this subject, the motion was allowed to remain as originally worded. The amendment was then put and carried; it was also carried as a substantive motion.

Dr. WOOD inquired what was to be done with the request of Dr. Acland and Dr. Paget to have their title of M.D. of the University of Dublin removed pending the discussion of the question as to the legality and expediency of registering such additional titles.

Sir W. GULL proposed that the request be acceded to.

Mr. TURNER said that if the Council were ultimately in favour of registering such titles Dr. Acland and Dr. Paget would be in an awkward position if their names were erased.

Sir D. CORRIGAN said that the registrar would have no power to remove the names.

Mr. LISTER thought it would be better that the names should remain until a further legal opinion had been obtained.

The PRESIDENT said that Dr. Paget and himself had desired to place the Council in an independent position in the matter, but at the same time it seemed very doubtful whether the names could be removed until the whole question had been settled.

Dr. THOMSON moved as an amendment that the consideration of the question should be deferred until the opinions of the law officers of the Crown had been obtained.

Sir W. GULL said he was willing to accept Dr. Thomson's proposal in substitution for his own.

The amendment was then put as a motion and carried.

Mr. MACNAMARA proposed that the case of Dr. Eustace, and the opinions relating thereto, be entered on the Minutes.

Sir. D. CORRIGAN seconded the motion, which was put and negatived.

A report was brought up from the Executive Committee stating that "having duly considered the evidence, the name of George Stratton Symmons ought, in their opinion, to be erased by the Council from the Medical Register." The Council deliberated in private on this subject, and the name was ordered to be erased.

An application was then received on behalf of Samuel Levenston that his name should be restored to the Register.

Mr. OUVRY explained that Mr. Levenston's name had been struck off in consequence of a letter addressed to him by the registrar not having been answered within six months. It was thought undesirable to restore the name, and as Mr. Levenston had threatened to take proceedings if it were not restored, he (Mr. Ouvry) had taken the opinion of counsel as to whether the discretion of the Medical Council was absolute in the matter, and if so, whether they were bound to state their reasons. The opinion was that the discretion of the Council was absolute, and that they were not bound to assign any reason.

Mr. LISTER thought that the Council should know something of the circumstances of the case.

Strangers were then requested to withdraw and the Council deliberated on the case in private.

Returns were received from the Director General of the Army Medical Department of degrees, diplomas, and licences of the candidates for commissions in the Medical Department of the Army, who presented themselves for examination on September 14th, 1876, and on February 12th, 1877.

Dr. STORRAR called attention to the resolution passed by the members of the North of England branch of the British Medical Association on April 27th, 1877, and forwarded for the consideration of the Council, "That it is the duty of the General Medical Council to prosecute unqualified medical practitioners." He referred to a resolution previously passed on the same subject by the Council, stating that the Council did not regard itself as a prosecuting body. It was, he said, strongly felt that it was repugnant to the whole spirit of British law, that the power of prosecution and the power of judgment should rest in the same body. Although, however, the Council had never undertaken the duty of prosecution, it had contributed to the expense.

Sir W. GULL thought that as there was a wide-spread feeling on the part of the general body of medical practitioners that the Council ought to undertake prosecutions, the question should not be decided without some further consideration.

Dr. WOOD suggested that the matter should be further considered on Monday, and this course having been assented to, the Council adjourned.

SATURDAY, MAY 12TH.

The first business of to-day was the consideration of Dr. Humphry's report to the Executive Committee on answers from medical licensing bodies to the questions proposed to them by the committee with regard to the result of professional examinations and deficiencies in preliminary education. The answers extended over forty pages of the Minutes. Dr. Humphry, in his report, stated that "Answers containing more or less valuable information and suggestions have been received from the Universities of Oxford, Cambridge, Edinburgh, Glasgow, and Aberdeen; the Colleges of Physicians of London, Edinburgh, and Ireland; the Colleges of Surgeons of England, Edinburgh, and Ireland; the Apothecaries' Society of London and the Apothecaries' Hall of Ireland; also recommendations from the Conference of Representatives of the Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow. The Faculty of Physicians and Surgeons of Glasgow 'regret that they have not before them sufficient data to form a reliable judgment in regard to many points raised in these queries'; and 'the experience of the Faculty of the University' of St. Andrews 'is so very limited and exceptional, that they do not deem it advisable to submit any opinion.' From the letter sent by the medical registrar of the University of Dublin, it is to be inferred that the questions have not been submitted to the authorities of the University, and they have, therefore, not had an opportunity of giving to the Council the benefit of their experience and opinion." The report first dealt with preliminary education and examinations, and stated that "the deficiencies noticed by several of the bodies (Colleges of Surgeons of England, Edinburgh, and Ireland, Colleges of Physicians of Edinburgh and Ireland, and the Faculty of Physicians and Surgeons of Glasgow) demanded the serious attention of the Council. Unless a youth has acquired a fair amount of general knowledge, precision of thought, and habits of industry, at the period of commencing professional education, it is doubtful whether he ever will do so. At any rate, he starts at a great disadvantage, and is scarcely likely to master the details of the various professional subjects, and to acquire sufficient knowledge of them to be able to pass the examinations at the expected time. The fault is often less in himself, and in his professional teachers, than in the early training which he has received. . . . . A difficulty has always been felt to be caused by the fact that the examinations are conducted by so many different bodies, the requirements of which vary; and the standard is thereby lowered. The opinion was clearly enunciated in the Council and never departed from, that the examination in subjects of general education should ultimately be left to the national educational bodies." Dr. Humphry did not think that there was any sufficient reason for altering or adding to the subjects required at the preliminary examination. Referring to professional examinations, his report stated:—"A careful analysis of the annual returns of the final examinations by the several licensing bodies, during fifteen years, for which the Council is indebted to Dr. Aquilla Smith, shows that the number of rejections in that examination has steadily increased throughout the period of his investigation. Whereas in 1861 they were only 12·4 per cent., in 1875 they amounted to 23·2 per cent. The increasing ratio is observable in the examinations of each of the several licensing bodies, with one or two exceptions; and the table for 1876 shows that the proportion of rejections has by no means diminished during the past year. This growing proportionate number of rejections proves that the requirements in the examinations have increased in greater proportion—in much greater proportion, in fact—than the attainments of the candidates. The rejections are attributed by the licensing bodies, in their answers, to the imperfect knowledge of the candidates, resulting, in the main, from want of diligence. The recent visitations of the examinations by the Medical Council did not disclose any unfairness or undue severity on the part of the examiners, or give rise to any suggestions for lowering the standard of the examinations. It is clear, therefore, that the efforts of the Council must be directed, not to lower the standard of the examinations, but to raise the standard of the education of the candidates more nearly to a level with them." After referring to several suggestions made by the bodies in reference to this subject, the report dealt with professional education, and stated:—"It is satisfactory to find that, although the rejections at the examinations are so numerous, there is a concurrence of opinion on the part of most of the authorities that the attainments of the candidates have increased during the last ten or fifteen years. This is in itself a sufficient evidence that the growing disproportion between the requirements of the examinations and the attainments of the students indicated by the rejections, is not due to a diminution of efforts on the part of the teachers, or of diligence and ability on the part of the students, but to the increased stringency and widened area of the examinations. Some of the licensing bodies (the Apothecaries' Society of London, the College of Surgeons of Edinburgh, and the Universities of Edinburgh and Glasgow) express, more or less strongly, the opinion that the period—four years—of professional study is insufficient. On the other hand, the College of Surgeons of England 'is not prepared to say that students

of average intelligence and fair industry cannot within the time now generally allowed qualify themselves to pass their examinations.' The College of Physicians of Edinburgh 'would not be prepared to make the extension of the period of study obligatory.' The College of Surgeons of Ireland regards the four years to be amply sufficient. The University of Aberdeen, the College of Physicians, and the Apothecaries' Hall of Ireland, take the same view, and consider that the time allowed would be sufficient, if the full period of four years were well employed.'" The report concluded by the following recommendations submitted to the sanction of the Council:—"1. That it is desirable that the examinations in subjects of general education should be now left to the national educational bodies, and that it be delegated to the Executive Committee to communicate with the licensing bodies on this subject, and to report to the Council at its next meeting. 2. That it be recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases of decided ignorance in general education displayed by the candidates, with the name of the board or boards before which the preliminary examinations have been passed; and that the licensing bodies be requested to transmit such reports to the registrar of the General Medical Council. 3. That a letter be addressed to each of the examining boards whose certificate is accepted as a test of preliminary education by this Council, directing attention to the complaints which have been made by several of the licensing bodies, with regard to the insufficiency of the general education of many of the candidates presenting themselves for their examinations. 4. That it be a recommendation to the licensing bodies that there be in future three professional examinations; the 'first' to be passed before the end of the first year of professional study; the 'second' to be passed before the end of the second year; and the 'third' to be passed after the completion of four years of professional study. 5. That the first examination be in physics and chemistry, elementary human anatomy, and practical pharmacy. That the second examination be in anatomy, physiology, and materia medica; and that the third examination be in the other subjects of medical study. 6. That a committee be appointed to consider the subjects of the professional examinations to be required, and the limitation of the range of the subjects by schedule; to draw up such schedules in the instances in which it may seem appropriate; and to make, with reference to the subjects of the examinations, such suggestions as may appear desirable. 7. That a visitation of the several medical schools, the certificates from which are received by any of the licensing bodies, be made during the ensuing year; and that the reports of such visitations be laid before the General Medical Council at its meeting next summer. 8. That two members of the Council be appointed visitors of the medical schools, and that their payment be the same as in the case of visitors of examinations. 9. That the appointment of the visitors, and the arrangements for the visitations, be left to the Executive Committee. 10. That certificates of study, attendance at lectures, and hospital practice, be accompanied by evidence of attendance at examinations, from time to time, in the several subjects. 11. That every candidate for the final professional examination be required to give evidence that he has had practical experience in charge of patients, during six months, in hospital, or elsewhere, under the supervision of a competent medical practitioner."

Dr. HUMPHRY said the Council would remember that certain questions had been sent to the licensing bodies for the purpose of taking them into counsel on the great subject of medical education. The Council was desirous of ascertaining the opinion of the experienced men at the head of those various institutions. The result had been eminently satisfactory, for nearly all the bodies had taken the question into very serious consideration, and had given the Council a large amount of information. All of them, however, had not done themselves justice in their answers, not having represented quite fully and fairly the amount of work which they had gone through in order to produce them, for though they were short they involved numerous details in their preparation. The report which he had drawn up was, in a great measure, a condensation of the views of the several bodies, which he had followed up by certain recommendations that would be brought before the Council in order that the matter might be fully and conveniently discussed. He proposed, therefore, that the Council should resolve itself into a committee for that purpose.

Mr. MACNAMARA seconded the motion.

Mr. TURNER proposed as an amendment "That as Recommendations 1, 4, 5, 6, 10, in Dr. Humphry's report to the Executive Committee refer to subjects on which recommendations have been made by the Committee of Recommendations, their consideration be deferred until the report of the committee comes before the Council." The Council would remember that on the 24th May last a document, entitled the Recommendations and Opinions of the Council, together with the observations from certain bodies, were referred to a special committee, whose report had been received and entered on the Minutes, and was to be considered on an early day on the next session. The report was a very comprehensive one, including many of the subjects with which Dr. Humphry had dealt, and he thought it would be more convenient to take the committee's report into consideration before that of Dr. Humphry. The report of the committee dealt with the whole subject, while Dr. Humphry's report was more in the nature of a supplement.

Dr. WOOD seconded the amendment, which was put and negatived.

The original motion was carried, and the Council accordingly resolved itself into committee.

Dr. HUMPHRY moved, "That it is desirable that the examination in general education be left, so far as it can be, to the examining boards of the national educational and examining bodies recognised by the Medical Council, and that it be delegated to the Executive Committee to communicate with the licensing bodies, for the purpose of carrying out this object." It had, he said, been decided so frequently by the Council that this was a desirable thing that he need not occupy the attention of the members on the subject. One of the great objects of the Council was to improve the general education of medical students, which alone could afford a basis for a sound medical education which the Council desired to establish. It was by the desire of the Medical Council that preliminary education was first established and required in the profession.

Mr. MACNAMARA said that in the College of Surgeons in Ireland it was established 100 years ago.

Dr. HUMPHRY said he was alluding to the general requirements of the profession. The great desire was that the preliminary education and examination should be left to the national educational and examining bodies of the country. During the early sittings of the Council it was found scarcely practicable to carry out that object in any division of the United Kingdom, as there was really no opportunity for the students to undergo examination by the bodies in question, and consequently the several licensing bodies instituted examinations themselves to meet the requirements of the Council; but it had always been desired that the ultimate result should be to delegate the work to the general educating and examining bodies of the country. A year ago, in consequence of the recommendation of the Council, the College of Physicians had determined to give up this preliminary examination.

Dr. PITMAN said that the College of Physicians had given up its preliminary examination seven years ago.

Dr. HUMPHRY said that he had also felt that the licensing bodies had travelled a little out of their way in instituting examinations in general education, but at first there was perhaps no other course for them to adopt. Things were now altered, in consequence of examination having been instituted by the universities, which were admirably adapted for the purpose, and all students could avail themselves of them on payment of a very small fee. It might be that in Scotland and Ireland there were not such facilities as in England; but if the bodies were communicated with, the Council would ascertain how far the desired object could be carried out.

Sir D. CORRIGAN asked what was meant by "educating and examining boards," and inquired whether the School Boards were included.

Dr. STORRAR said that boards were to be "recognised by the Medical Council."

Sir D. CORRIGAN said that the Medical Council had not recognised the National Board of Ireland, but it recognised the Universities of Oxford and Cambridge, although it had been publicly stated that the terms on which the B.A.

degree of those universities could be obtained were a disgrace to the name of education.

Dr. WOOD said that several of the medical corporations had instituted preliminary examinations long before anything like general examinations were instituted by the universities. The body which he represented was the first in Scotland to institute a preliminary examination before the commencement of medical studies. When that system was first proposed by himself, there was a loud outcry in the college that all students would be driven away. He then suggested that it should be first made permissive, and not obligatory. Preparations were accordingly made for twenty or thirty students, but the names of 120 were given in, the students being most anxious to submit themselves to the preliminary examination. The examination for the conjoint qualification was a very high test, he believed higher than that used in some of the universities in Scotland. He was himself examiner in Latin, and could state that the knowledge of English students who came to the college and were examined in that subject was infinitely below that of the Scotch. At the examination in 1876, 72 students were examined in English, of whom forty passed, seven were rejected, and twenty-five found the examination so difficult that they did not give in any papers. In Latin eighty-seven were examined, of whom twenty passed, thirty-four were rejected, and thirty-three gave in no papers. In arithmetic seventy-four were examined: twenty-seven passed, fifteen were rejected, and thirty-two gave in no papers. He contended that there was no urgent necessity for taking such a revolutionary and decided step as that proposed by Dr. Humphry. He was aware that it would be desirable to diminish the number of bodies qualified to examine in general education, but it would be a hardship to exclude a number of the colonial examinations included in the list of the Council. That list was under the care of the Executive Committee, and no examining body was added to it without satisfactory evidence that its examinations were such as the Council required. He trusted that Dr. Humphry's motion would not be carried, because he did not think it would lead to any good result.

Mr. MACNAMARA thought that the Council was at least twenty years behind its time on the subject under discussion. With regard to the Royal College of Surgeons in Ireland, that body desired to receive the recommendations of the Council with the greatest respect; but it could hardly be expected that it should hand over to other bodies its preliminary examinations in regard to which it had been so much in advance. They were conducted by men of the highest standing, and were of a very efficient character. He thought that great injury had been done by adding to the list of the Council bodies whose examinations were of a very inferior character, and that that list ought to be materially curtailed. Considering the great ignorance displayed by candidates from some of those bodies, it was time for the licensing bodies to look out for themselves and see that gentlemen were not passed who did not know whether "physician" was spelled with a big or a little "F." (Laughter.)

Dr. QUAIN moved as an amendment, "That it is desirable that the examination in general education be left to the universities, and such other bodies engaged in general education and examination as may from time to time be approved by this Council, and that it be delegated to the Executive Committee to communicate with the licensing bodies for the purpose of carrying out this object."

Mr. SIMON seconded the amendment.

Mr. BRADFORD said that the Society of Apothecaries had long conducted a preliminary examination with great success, and by a body of men of high attainments quite distinct from the Court of Examination.

Dr. ROLLESTON supported the resolution. He condemned the practice of allowing medical corporations to conduct the preliminary examinations of the students, and read an abstract from Billroth in regard to the necessity of a high-class general education for members of the medical profession.

A lengthened discussion then took place as to the precise wording of the resolution and amendment. Ultimately the amendment was put and carried in the following form, eleven voting for it, nine against it:—"That it is desirable that the examination in general education be left to the universities, and such other bodies engaged in general education and examination as may from time to time be approved by this Council, and that it be delegated to the Executive Committee to communicate with the licensing bodies for the purpose of carrying out this object."

It then became a substantive motion; when

Dr. THOMSON moved as an amendment, "That the examinations in general education be eventually left entirely to the examining boards of the national bodies engaged in general education and examination, recognised by the Medical Council; and that the Executive Committee be required to communicate with the various licensing bodies as to the manner in which this may be carried out."

Dr. HALDANE seconded the amendment, and said its intention was to leave things as they were at present. The last division showed that the Council were not prepared to make such a unanimous representation as would have any great effect upon the licensing bodies. His own feeling was that eventually the preliminary examination should be surrendered by the various licensing bodies, but he did not think the time was yet come for doing it.

Dr. STORRAR said the progress which had been made of late years in promoting general education had fallen far short of what was originally expected. About two years ago an application was made to the London University asking them to institute local examinations for matriculation in Scotland, and such an examination was conducted in Edinburgh last January. No doubt this would set up the backs of the Scotch universities and lead them to make an effort to drive the London University out of the field; but that could only be done by establishing suitable examinations of their own.

Mr. TURNER said Dr. Storrar's statement with regard to Scotland did not bear on the question before the Council. At the present time a Royal Commission, consisting of very eminent men, was sitting in Edinburgh and inquiring into the whole subject of Scotch universities and their relations to the education of the country. Their report had not yet been published; but from the nature of the evidence that had been received he had no doubt that very important changes would be effected in connection with entrance examinations.

Dr. THOMSON said that some time ago local examinations were instituted in Edinburgh, and last year Glasgow followed the example. Scotland was under great obligations to the University of London for having set an example, and put itself forward as a model to the other universities.

The amendment was negatived by a large majority.

Mr. MACNAMARA said he intended to move another amendment, but as it was then five minutes to four, the Council resumed.

Mr. MACNAMARA said Dr. McSheedy had addressed a letter to the Council asking permission to be heard by counsel. The chairman of the Executive Committee had informed him that it was quite competent for them to agree to the request. The counsel engaged was Mr. Butt, M.P., and it would be a matter of courtesy to that gentleman if the Council would inform him at what hour he might attend.

On the suggestion of Dr. ANDREW WOOD 3 o'clock on Tuesday was fixed for the consideration of the case, and the Council then adjourned.

MONDAY, MAY 14TH.

The Council proceeded with the adjourned consideration of Dr. Humphry's Report.

Mr. MACNAMARA said that the College of Surgeons of Ireland would not give up its right of examining medical students in general education. It was true that out of respect for the Council the college had sometimes accepted the examination of other bodies; but many of these being insufficient, it had resolved more fully to satisfy itself on the point. He would propose, as an amendment, "That it be remitted to the Executive Committee to revise the lists of examining bodies whose examinations fulfil the requirements of the Medical Council as regards preliminary education, and to report thereon at the next meeting, mentioning, at the same time, the steps they have taken in each instance to ascertain the efficiency of the examinations conducted by the said bodies." The Council had really taken no steps to ascertain whether the preliminary examinations of the bodies in question were anything more than a sham. The

bodies should be visited for that purpose. It might be said that the process was an expensive one; but he would take out every shilling in the bank in order to perfect the list, and the money would be well spent.

Mr. Macnamara's proposal not being seconded, it fell to the ground.

Sir D. CORRIGAN objected to the final words of the resolution, "for the purpose of carrying out this object," which, he said, appeared to indicate that the Council desired to carry out the proposal without asking the opinion of the bodies, and whether they approved of it or not; and he accordingly proposed that the words should be omitted.

Dr. QUAIN said he was willing to accept Sir D. Corrigan's suggestion.

Sir D. CORRIGAN.—That is the greatest victory I have ever had in my life. (Laughter.)

Dr. WOOD said he thought it would be better if Sir D. Corrigan would bring forward his proposal as an amendment, which he would second.

This course having been adopted,

Dr. SMITH said he objected both to the amendment and the motion. If the amendment were carried it would pledge the Council to a recognition of all the bodies in the present list. ("No, no.") He thought that nineteen examining bodies should be removed from the list.

Dr. FLEMING said he did not think that the Scotch corporations would accede to the proposal. The large numbers of rejections that took place showed the importance attached by those bodies to preliminary education. He thought there was as much need to visit the preliminary examinations as there was to visit the professional examinations. There were many bodies upon the list of whose examinations nothing was known, and it was very desirable that they should be visited and reported upon. He believed that the boards in Glasgow and Edinburgh would be delighted to receive a visit from the Council.

Sir D. Corrigan's amendment was then put and carried *nem. con.* On its being put as a substantive motion,

Dr. STORRAR said he thought that some words were still wanted to express the intention and desire of the Council. He suggested that the resolution should read—"That it is desirable that the examination in general education be left to the universities, *apart from their medical faculties*, &c." It had been stated that in the University of Edinburgh there were examinations the passing of which was a condition for admitting students to study medicine in that University, and that those examinations were conducted by arts professors. In the proper sense of the word, however, they were not arts examinations, but special examinations, conducted, it was true, by arts professors, but under the control of medical professors.

Mr. TURNER wished to give a direct contradiction to the statement of Dr. Storrar. The medical faculty of the University had nothing to do with the examinations, except that the dean, as head of the faculty, sat at the table and recorded the decisions.

Dr. THOMSON said it was the same thing in Glasgow.

Dr. STORRAR said he knew it was contemplated in 1861 that medical graduates should have a special arts examination coined for them. The preliminary examinations should, like Cæsar's wife, be above suspicion. It should be an examination common to all students, medical or otherwise.

Mr. TURNER said it appeared that his correction was not deemed sufficient by Dr. Storrar, and his proposed addition to the resolution conveyed the insinuation that the medical faculty took part in the preliminary examinations. He desired to deny the statement categorically, and he objected to the word "coined" as applied to the examinations in question. They were regulated by the University Commissioners appointed by the Crown fifteen or twenty years ago—men of the very highest standing in Scotland; and would it be supposed that such men would "coin" an examination for a special purpose, which was not to carry out the object for which it was instituted?

Mr. LISTER said that the University of Edinburgh had no matriculation examination like the University of London, and if it examined medical students at all a new arrangement was necessary for the purpose; no fault therefore could be found with the Commissioners for taking that step. The question was whether it was an adequate and impartial examination. A general matriculation examination would, he believed, be a very wholesome thing, but the next best thing was surely to have a special examination conducted by the professor in arts.

Dr. ROLLESTON supported Dr. Storrar's proposal. The object of the preliminary examination was to give the public evidence that the profession of medicine had the same preliminary training as other professions. Billroth had spoken strongly on that subject. As he had pointed out, in most small towns, the doctor, the lawyer, and the parson formed the three pillars upon which the main culture of the place was supported, and it was a matter of no small importance that the doctor, who supported one-third of the culture, should have gone through a similar training to that of the other two.

Mr. LISTER said that in the University of Edinburgh it was permissible for the medical profession to take part in the preliminary examinations, but for years past they had been left to the arts professors.

Dr. HALDANE said he objected to the motion because he thought that any examination of the kind referred to should be common to all the faculties, and also because he believed that the members of the medical faculty might take part in the examinations, and had actually done so, but he was glad to hear that such was no longer the case.

Sir W. GULL said they were all agreed that students should be tested in general education by persons who were entirely occupied with education, apart from that which was technical or special. There was a general feeling that men entered the profession untrained, and that their preliminary education had been for the most part good for nothing. The great evil to be deplored was that so many entered the profession who ought never to have been allowed to enter it at all.

Dr. WOOD said that for years the Council had been endeavouring to carry out that which Sir W. Gull desired—a good preliminary training for medical students. Medical students were now not allowed to register until they had been trained and tested, and that he thought was one of the best results that had followed the introduction of the Medical Act. The Council had also decided in what preliminary subject the students should be examined. Since these arrangements had been made the general culture of the profession had been immensely improved. Certainly in Scotland there was a higher class of medical men than previously existed, and that was due not so much to the improvement of professional examinations as to the improvements in preliminary testing.

Dr. STORRAR said he knew there was an increased activity throughout the country with regard to education. That activity no doubt extended to Scotland, but, excepting in the large towns, there were no local means in Scotland of furnishing secondary education; the parochial schools there had been so remodeled that they no longer furnished the classical education which they formerly gave, and the result was that many of the sons of opulent merchants in Scotland were sent to the various grammar schools in England; but unfortunately the class of society which furnished to so large an extent members of the profession in Scotland could not afford to send their sons to those distant places. Scotland, however, was no longer a poor country, and if Dr. Wood and his colleagues would go back with a resolution from the Medical Council boldly declaring that the secondary education was deficient and discreditable, he believed that funds would soon be contributed to remedy the deficiency. He was sometimes supposed to be influenced by a hostile feeling against Scotland, but he was proud of having Scotch blood in his veins. ("Hear, hear," from Dr. Wood.) If he was two years out of Scotland, he felt something approaching to nostalgia. He was glad to hear that it was not now the case in Edinburgh that the medical professors of the University took part in the preliminary examinations, and he willingly withdrew his remarks on the subject. His desire was that there should not be a special preliminary education for medical students, but that it should be such as was common to all students. He understood that Prof. Lister would support his proposition if it were slightly modified—namely, "That it is desirable that the examinations in general education should be left to the arts faculties of the universities, &c."

Dr. HUMPHRY hoped that the Council would not pass the amendment as originally proposed, or as now modified. He did not know what was meant by a university, "apart from

its medical faculty." The medical faculty was necessarily an integral part of a university, and it was not desirable that the general education, or any part of the education of a university, should be uninfluenced by the medical faculty or the other faculties. The essential feature of a university was that it was a combination of various faculties, all exercising their due influence upon the tone of the education given. They were all thankful in the universities that the medical education should be submitted to the discriminating influence of the arts faculty, but this again should be subject to the influence of the various other faculties.

Dr. SMITH expressed his concurrence with the remarks of Sir W. Gull, as to the necessity of intellectual training. He said he thought the Council ought to establish a definite standard for preliminary education, so that it might better determine what examining bodies could be trusted.

Dr. STORRAR'S amendment was put and rejected, and the original motion was carried.

Dr. HUMPHRY then moved that it be recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases in which decided ignorance of general education has been displayed by the candidates, with the name of the board or boards before which the preliminary examinations have been passed; and that the licensing bodies be requested to transmit such reports to the registrar of the General Medical Council." The resolution, he said, was precisely the same as that proposed by Dr. Haldane a year ago, but it was not then accepted, the Council desiring further information on the subject. The replies of the licensing bodies had given the further information required, and shown the great dificiencies existing in general education.

Dr. HALDANE seconded the motion. He did not agree with Sir W. Gull that the standard of general education required to be raised. The standard laid down, however, was very rarely attained. A very large proportion of rejections took place at the preliminary examinations. In the Colleges of Physicians and Surgeons of Edinburgh 53 per cent. of the candidates at a recent examination were rejected in Latin, 75 per cent. in Greek, and from 40 to 45 per cent. in arithmetic, algebra, and geometry. In that way a large number of incompetent men were prevented from entering the profession at all. So far as Edinburgh was concerned they were acting up to the standard of the Medical Council, but he was confident that there were other bodies in which that standard was not acted up to. At every professional examination men came forward who did not know the elements of English, who could not even spell or express themselves correctly. Such men should not have been permitted to register as students.

Sir W. GULL said that the ignorance to be deplored was not so much that of the candidates as that of the examining bodies who had passed them.

Dr. SMITH said that the examiners in professional education had a right to reject candidates whose general education was defective.

Mr. LISTER said that bad spelling was often due, not to bad education, but to hurry in writing, and that the examiners in professional education should give their attention to that subject only.

Mr. TEALE thought it would be unjust to refuse a diploma at the end of the student's career on the ground of bad spelling.

Mr. MACNAMARA said that in case of such a rejection the student might naturally and justly say, "Why was I not stopped at the commencement, when I could have turned my attention to something else?"

Dr. STORRAR said that the more familiar he was with examinations the less he was alarmed at the high percentage of rejections. Formerly it was considered a great disgrace to be rejected, and suicides sometimes followed; but examinations were now so frequent that students went up to them "to have a shot at them," and they submitted to rejection with great equanimity. The rejections in the University of London exceeded 50 per cent. The students came up for examination to such an extent that it had been thought desirable that the practice should not be allowed without the payment of an additional fee. With regard to spelling, he thought there was a psychological question involved in it. Some persons and some families never could spell. At a recent Civil Service examination for some minor appointments one of the commissioners said to him, "I know what the result will be: we have 2000 candidates; the Irish will get all the appointments, and the Scotch will be nowhere." (Laughter.) It was said that the Scotch could not spell well, but that they passed better examinations in the higher subjects. Slips of spelling did not necessarily justify the inference that men were ill-educated.

Dr. WOOD desired to say, in defence of his country, speaking from experience as an examiner, that for every Scotchman who could not spell there were two Englishmen and perhaps three Irishmen. (Much laughter.)

The motion was then put and carried.

Dr. HUMPHRY moved, "That a letter be addressed to each of the examining boards whose certificate is accepted as a test of preliminary education by this Council, directing attention to the complaints which have been made by several of the licensing bodies with regard to the insufficiency of the general education of many of the candidates presenting themselves for their examinations."

Mr. TURNER seconded the motion, which was unanimously adopted.

Dr. HUMPHRY moved, "That it be a recommendation to the licensing bodies that there be in future three professional examinations: the first to be passed before the end of the first year of professional study; the second to be passed before the end of the second year; and the third to be passed after the completion of four years of professional study." He said it was not the object of the resolution to increase the examinations of the professional students, or the subjects in which they were to be examined, or the amount of examination to be undergone; it was simply to divide them into three, instead of, as at present, into two parts. The object was to give a better direction to medical studies, and to insure the better employment of the earlier period of medical study. The object of examinations was not merely to provide a test of information obtained, but to direct study; and he thought it would be a great advantage if the course of study were directed in the way he had suggested. The great defect in medical education was the want of good employment in the first year. Many students wasted that time and were not able to make up for it. The only way to secure a good employment of that period was to have an examination at the end of it. Having secured a fair training in the earlier fundamental subjects, the student would be able to pass on with more advantage to the subsequent subjects of study. A new feature intended to be introduced by the resolution was, that there should not be an accumulation of work and examination heaping itself up towards the termination of medical study. It was proposed that a student should not be allowed to count his second year of study until he had shown by examination that he had obtained the requisite knowledge in the first year. Nothing would operate more beneficially upon the medical students, or tend more to diminish the number of rejections at the termination of study, than such an arrangement. No additional examiners would be required, and therefore there would be no additional expense of examination.

Mr. TEALE, in seconding Dr. Humphry's motion, said that according to present arrangement an overloaded curriculum fit only for four years was practically drawn up into three years, and in the second year the students were really doing the second and the third years' work. That was an enormous evil, and resulted in students often giving their bodily presence at lectures without any mental attention. In Scotland they had been obliged to make their regulations for three years instead of four, but it was very difficult to carry them out. It was of great importance that the second part of medical study should not overlap the first, and he therefore hoped that Dr. Humphry's proposal would be adopted.

Mr. TURNER said the Council should understand a little more definitely where the four years of professional study should be passed; whether or not a part could be passed at the schools and a part elsewhere, and how far the earlier and the later subjects could be combined. Before committing the Council to the statement that there ought to be three examinations there should be a clear definition as to what were the subjects of study.

Dr. HUMPHRY said the Council had already decided that there should be four years of study, comprehending not less than four winter sessions.

Mr. TURNER said that Dr. Humphry's proposals ought not to be interpreted by former recommendations which had to be reconsidered.

Dr. THOMSON said that students were very apt to enter on the study of practical subjects before they had thoroughly mastered the elementary subjects of study, and a line of demarcation between them would be very desirable. He quite agreed that a longer time than three years was required for medical study. It might, he thought, be an advantage to begin with a summer course on elementary subjects before entering upon the regular winter session.

Dr. WOOD agreed with Dr. Humphry, that students should so carry on their studies as not to be obliged to have recourse to a large amount of cramming at the end, but he was not sure whether the Council ought to lay down so definite a scheme as that proposed in the resolution. He should prefer the suggestion of the Committee of Recommendations, which did not, like the resolution, tie down the bodies to three examinations. In the Edinburgh colleges, if a student came from a university with a certificate for anatomy, physiology, and chemistry, he was not examined again upon those subjects, but only upon the practical branches. That, he thought, was a useful step in the direction of conjoint examinations, in which the universities bore an important part.

Mr. LISTER thought that the proposed regulation should be permissive only. When a man had acquired a competent knowledge in the elementary subjects he should be allowed to pass in them; other subjects, however, should be deferred till the end of the course. He should have no objection to a regulation that no student should be allowed to come up for the final subjects within two years, having passed the more fundamental subjects.

Mr. SIMON said he warmly concurred in the general intention of the resolution as explained by Dr. Humphry. Its intention was that the curriculum was to be in two parts, and that study in the latter part was not to be recognised until the student had passed an examination in the earlier part. That would be the greatest reform ever made in medical education, and if it could be carried out it would be an incalculable advantage to the medical schools, whose great difficulty was the confusion of studies, against which so little precaution was taken. It was, however, of great importance not to press unduly on the authorities in matter of detail. He would not, for instance, say that the study of anatomy should not count until the student had passed his first examination. He thought the time was not distant when the preliminary examination would relieve the medical curriculum of all elements of natural history.

Dr. ROLLESTON proposed the following amendment:—"That these examinations be passed in a certain order approved by the Council, a student being allowed to present himself for either of the two later examinations on a certificate of having passed the preceding examination or examinations." It would be an injury to medical students not to allow those who were able to pass the previous examinations dealing with fundamental subjects to gain so much time for their clinical studies as they could gain by superior diligence, and to pass their examination at an earlier period. It was necessary to legislate both for the stupid and the clever, the idle and the diligent. He approved of the regulation of not allowing any subsequent time to count unless the first examination was passed, but if a student could pass two examinations sooner than others he should be allowed to do so, and thus gain so much time for his clinical work. He quite agreed that a licence should not be granted before the expiration of four years.

Dr. HUMPHRY said he was willing to divide the resolution into two parts, the first stating that there should be three examinations, and the second dealing with the order of those examinations.

Dr. STORRAR objected to anything like over-regulation, but said he concurred in the general design of Dr. Humphry's resolution.

After some further discussion, the first part of the resolution was put and carried.

The consideration of the remaining part of the resolution, together with the amendment of Dr. Rolleston, was deferred.

The Council then resumed, and shortly afterwards adjourned.

TUESDAY, MAY 15TH.

The PRESIDENT, in reply to Mr. Teale, stated that the Government had asked the opinion of the Council on the question of foreign and colonial degrees and on the education and registration of midwives. After the reception of various memorials and other documents, the Council was mainly occupied during the remainder of the day in fulfilling its judicial functions, with regard to the erasure of names from, and the restoration of names to, the Register. The name of John Joseph Mullen was ordered to be restored. The name of Thomas Richardson, of Millom (who was represented by a solicitor), was ordered to be erased. He held and was registered on a diploma of the Metropolitan Medical College of New York, stating that he had attended the lectures, &c., of the College, he not having been in America at the time. The names of Michael Manus Sheedy and James Meehan (which had been erased in consequence of a conviction for misdemeanor) were ordered to be restored. Mr Butt, Q.C., appeared in their behalf. With regard to the application of J. Samuel Leverston, to have his name restored, the Council declined to accede to it, unless he should furnish to the Executive Committee satisfactory evidence of character. An application to restore the name of Henry Pearson was refused.

WEDNESDAY, MAY 16TH.

The Council resolved itself into committee, and resumed the consideration of Dr. Humphry's report. After a long discussion the motion was altered as follows: "That the first examination be passed before the commencement of the second year of professional study, it being hereby intended that no time which may elapse after the first year of professional study shall count until the first professional examination shall have been passed."

To this Dr. Andrew Wood moved as an amendment:—"That the professional examination be arranged in two divisions, the first division to embrace the more elementary subjects. The second division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study." This was seconded by Dr. Thomson, and ultimately, on being put as a substantive motion, Dr. Humphry's motion being postponed, was carried by a large majority.

Dr. Humphry's motion was afterwards negatived, only five members voting in its favour.

Recommendations five, six, ten, and eleven were remitted to the Committee on Recommendations, which was reappointed for the purpose of considering them.

At five o'clock the Medical Acts Amendment Committee retired, and after a short adjournment, the remaining members ordered the returns from the Army and Navy Department, communications from the Royal College of Surgeons of England and the University of Edinburgh on the subject of certificates of proficiency in vaccination, a report by the Executive Committee with reference to a resolution of the Branch Council for England in regard to the Lunacy Laws, and correspondence between the Royal College of Surgeons, and the Senior Lecturer of Trinity College, Dublin, on preliminary education and examination, to be entered on the Minutes.

THURSDAY, MAY 17TH.

The Council went into committee to-day on a Report of the Medical Acts Committee respecting the several points remitted to it for consideration. The first of these points was the registration of foreign and colonial degrees, on which, after some discussion, the Council passed resolutions in favour of the following amendments of the Medical Act:—"That the medical qualifications granted under legal authority in any part of Her Majesty's dominions outside the United Kingdom, and entitling to practise in such parts, should be registrable within the United Kingdom on the same terms as qualifications which are granted in the United Kingdom, but in a separate and alphabetically arranged section of the Register." "That the General Medical Council should have authority to establish, under conditions, in the Medical Register, a distinct alphabetical section for foreigners practising in the United Kingdom with qualifications granted in foreign countries and entitling to practise in those countries."

"That the Council should have authority to cause to be registered, in this section of the Register, such qualifications as it may, in its discretion, having regard to conditions under which they are granted, judge to be sufficient guarantees for the possession of the requisite knowledge and skill for the practice of their profession." "That the Council would not approve, as a general rule, that British subjects should be allowed registration in the United Kingdom on the basis of foreign qualifications; but the Council would permit, in particular exceptional cases, and by way of special grace, the registration of persons long established in practice in foreign parts and of approved character and attainments, but not possessed of registrable qualifications." "That the Council would not approve that foreign qualifications should be registrable as additional qualifications under the Medical Act by persons primarily registered under British qualifications."

The next point dealt with in the Report of the Medical Acts Committee was that of the legal difficulties under Russell Gurney's Act, and under the Medical (Royal College of Surgeons) Act of 1875. It was proposed to alter, as follows, the objectionable proviso to Russell Gurney's Act, cap. 41, clause 1:—"That if any university or medical corporation which has not before the passing of this Act examined women for qualifications as aforesaid, shall at any time after the passing of the Act see fit so to examine women, no woman obtaining such qualification shall, in respect of it, except at the further discretion of the university or medical corporation granting the same, be entitled to take part in the government, management, or proceedings of the university or corporation." The proposal was adopted, subject to the opinion of the solicitor of the Council as to the precise wording of the proviso. A resolution was also passed to the effect that the Council concurred in the opinion of the Royal College of Surgeons that the Act of 1875 required amendment; and that it should be amended in connexion with Russell Gurney's Act. A deputation was appointed to wait upon the Duke of Richmond on the subject on Friday (this day).

POISON OF THE VIPER.

PROF. G. VALENTIN records, in an interesting paper contained in the *Zeitschrift für Biologie* (Band xiii., Heft 1, 1877), the results of an extensive series of researches he has made with the poison of the viper during the summer of last year. The particular species he employed was the Viper aspera of Linnæus or Echidna aspis of Risso. Prof. Valentin states that he could only get one out of twenty vipers to bite on external irritation. Frogs placed in the same box often leaped on the heads of the vipers, and he teased them with the frogs by tying a string to the latter and striking the vipers with them. Rabbits, too, remained unharmed; exposure to a burning sun did not appear to irritate the vipers, though they sought the shady side of the box. He arranged an electric apparatus so that shocks of considerable intensity could be given. When these were passed through frogs, the animals went at once into a state of tetanus, but the vipers only responded with some slight wavy movements, even when the sponge forming one of the electrodes was firmly pressed down upon the rough skin of the animal. The introduction of ether vapour made the vipers lively, but they still had no inclination to bite. One which was thus etherised became quite insensible, and he took the opportunity of squeezing out some of the poison upon small squares of Swedish filtering paper. He also obtained some of the transparent mucus which had collected on the palate near the apices of the poison fangs. On placing a fragment of this paper a few millimetres square under the skin of the back of a frog, he found that death generally but not always took place in a period varying from six to twenty hours, the cause of the fatal results, he thinks, being due to the admixture of some of the yellow oily secretion of the poison gland with the saliva. The quantity of the oily poison was very variable, and it was small in those animals that had been long kept in captivity. Paper impregnated with the poison retained its activity for six months or more, and enough was obtained from one animal to saturate twenty pieces of filtering paper, presenting from twenty to twenty-five square millimeters of surface. The retention of the head of vipers in alcohol for some months, and exposure of others to temperatures varying from 60° to 90° per cent., did not cause the poison to become innocuous. When pure the oily fluid presented no morphological elements. When scraped from the mouth it was often found to contain ciliated epithelium cells, which continued to vibrate for some days. Its sp. gr. he estimates at 0·92, and the amount of solid residue was in two instances 43·3 and 45 per cent. It is acid in its reaction. When a frog is bitten by a viper a speck of blood may appear, but the point of puncture can only be discovered with difficulty, or not at all. Some of the frogs bitten by the above-mentioned vicious viper died, even though only once bitten; whilst others, even after being bitten several times, remained apparently unaffected. The process of secretion did not appear to be very actively performed. By weighing a portion of paper before and after impregnation with the poison, and cutting it up into squares, Professor Valentin found that a quantity not exceeding 0·00037 of a gramme was capable of producing, when inserted beneath the skin of a frog, well marked and persistent symptoms of poisoning, and death in thirteen days. Quantities varying from half to one milligramme killed a frog in from eight to twenty hours. The first symptom of poisoning in the frog was increased abdominal breathing, the number of the respirations being increased; and there was also increased excitability, the animal leaping forward on being touched. It soon became restless, and a slight cramp-like extension of the hind legs was observed after each leap. After a time the animal was unable to recover itself when placed on its back, and its leaps became purposeless. The reflex actions then became interfered with, so that often the toes of one foot could be pinched without exciting movement, whilst on pinching those of the other foot vigorous movements of extension and flexion of the whole leg took place. Hemiplegia not unfrequently followed; yet exalted reflex sensibility often remained to the last stage. The circulation of the blood is often arrested in the vessels of the web of the foot and of the tongue, whilst the animal can still execute lively movements, and they are much congested; it would appear therefore that the cardiac impulses are greatly enfeebled. In the early stages of the poisoning, tetanisation of the vagus arrests the heart's action. At a later stage, when the heart has stopped, tetanisation of the vagus produces frequent and powerful contractions. The lymph hearts continue to beat (in one case forty-four beats per minute) after the heart has ceased. Valentin made experiments to ascertain the amount of respiratory exchange that took place before and after poisoning, and these demonstrated that the viper poison belongs to that class of poisons which, like antiar, veratria, muscarine, and atropine, diminish the absorption of oxygen, and do not, like small doses of curara, augment it. At a certain period after death, a time comes when the exchange of gases is more lively, and a large relative proportion of oxygen is absorbed. The action of the poison in diminishing the absorption of oxygen is consequently only transitory. The muscle curves of poisoned frogs show appreciable differences from those of healthy frogs, and these he illustrates by tracings. When the poison has been effective no contraction can be induced, even after the lapse of only five hours, with the most powerful coil. The excitability of the central nervous system is lost before that of the lumbar plexus. The application of electricity to the gland neither caused the secretion to be formed nor to be discharged. The cilia and spermatozoa of poisoned frogs continue their movements, as do also the opalina ranarum found in the large intestine and the filaria in the blood. Very small quantities of the poison introduced into the conjunctival sac of rabbits produced the most violent inflammation. The vipers refused all food whilst in captivity, and all, of course, ultimately died.

VACCINATION GRANT. — Mr. William Yates has received from the Local Government Board a grant of £17 8s. for efficient vaccination in his district—viz., Richmond and Petersham.

THE LANCET.

LONDON: SATURDAY, MAY 19, 1877.

DR. HUMPHRY is the pilot of the Medical Council in the matter of rejections at examinations and the state of education, preliminary and professional, among medical students. He has drawn up an abstract of the communications of the licensing bodies on these subjects, and has formulated certain recommendations which form the basis of the resolutions now being discussed by the General Council. On the whole, these recommendations and the resolutions based on them raise the most important points for attention in any serious attempt to better medical education. But they are far from being satisfactory. There is a want of force and courage in the recommendations, and in one conspicuous matter there is an entire evasion of what seems to us the plain, if not the felt, duty of the Council. There is scarcely anything in the recommendations of Dr. HUMPHRY which has not been recommended again and again, but the Council now begins to see that mere recommendations are not acted upon, and the time has come for something more. Take, for example, the state of preliminary education. And here we cannot suppress our regret to find that the sitting of the Council, which was to be specially devoted to the subject of professional examinations and their results, has been largely occupied with the subject of preliminary education, immensely important, no doubt, but thought to have been disposed of years ago by the Council. Take the simple but vivid fact given by a correspondent last week in our columns, in illustration of the state of preliminary education, that only forty-six out of seventy-five candidates, at a recent entrance examination, knew the genitive case of *unus*, and that only forty-eight out of seventy-five knew the genitive of *idem*. Take the almost universal report of the licensing bodies on this matter. The College of Physicians of Edinburgh is not thought to be an exacting body in its examinations, though, by the way, no members of the Council have done better service in exposing the want of general and preliminary education than its late representative, Dr. ALEXANDER WOOD, and its present one, Dr. HALDANE. What is the testimony of this body? It should be noted. "In reference to the general attainments of the candidates, the Council regret to be obliged to state that, in the opinion of their examiners, little or no improvement has taken place within the last ten or fifteen years." Similar testimony is given by several other examining bodies. The College of Surgeons of England, in whose recent examinations a large proportion of candidates failed to pass, says that though candidates are only rejected for defects in professional knowledge, "these defects are evidently in many cases attributable to the candidate having entered upon his professional studies at a time when his general education was inadequate." Yet though the failure of the past attempts of the Council to ameliorate the state of the preliminary education of candidates is complete, it has contented itself with saying that "it is desirable" that examination in general education should be left to the universities and other bodies engaged in general education; with recommending examiners in professional subjects to report glaring cases of defective general education with the name of the board which had passed them; and that a letter be addressed to each of the preliminary examining boards directing attention to the complaints which have been made. These are very weak remedies for a grave evil. No doubt "it is desirable" that examinations in preliminary education should be conducted by other than the medical examining bodies. So are a score of other things. But it is not heard of in any other body than the Medical Council that men content themselves with saying that so and so "is desirable," and this after for nearly twenty years saying nearly the same thing without any effect. While three or four of the medical examining bodies continue to have their own preliminary examination, the passing of which exempts the candidates from the necessity of passing that of other bodies, many will pass the preliminary examination of one body who intend to take the diploma of another. Besides, the Council has, as yet, no evidence before it, and, as far as we know, has sought none, to show that the preliminary examinations conducted by non-medical bodies are any better than those conducted by the medical corporations. On the whole, it is disappointing to find that the resolutions of the Council on the subject of preliminary education are weak, and entirely inadequate to effect any improvement.

At the moment we are writing it is too soon to speak positively of the action of the Council in regard to the question of rejections at professional examinations and the value of its proposals for reducing the proportions of this evil. Dr. STORRAR, indeed, makes somewhat light of rejections. He thinks that students get used to it, as eels get used to skinning, and, indeed, rather expect it, if they do not actually like it. But we venture to differ from him, and to regard the fact as an evil disgraceful to the medical bodies, and especially to the Medical Council, demoralising and disastrous to students, and one calling loudly and urgently for some better way of securing their proper education. The one valuable suggestion made by Professor HUMPHRY for the mitigation of this evil—viz., the institution of an examination at the end of the first year of study that should at once stimulate and direct the student—was amended again and again till it gave place to the following resolution, "That the Professional Examinations be arranged in two divisions: the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after passing the first division, nor before the completion of the fourth year of study." Thereafter the Council, apparently exhausted with this great effort for improving medical education, handed over the remaining recommendations of Dr. HUMPHRY to be dealt with by the Committee on Recommendations. A more feeble and tinkering attempt to grapple with a great subject was never witnessed, if we except two or three speeches, conspicuously one by Sir JAMES PAGET, in support of an examination at the end of the first year's study. We said at the outset that Dr. HUMPHRY in his recommendations had entirely evaded one

most important question upon which the Council should deliver itself during its present session—namely, the extent to which medical education consists of Lectures. If there is one thing on which the profession is unanimous it is that the student is over-lectured. Dr. HUMPHRY himself says "the courses of lectures must be reduced," but he adds "it does not appear desirable to make any special recommendation under this head. The matter should be left 'to the schools.'" The schools leave it to the Council, and so the work is not done.

IT has come at last. The Committee appointed by the Lords of the Admiralty to inquire into the causes of scurvy in the late Arctic Expedition commenced its sittings just four months ago. The work of examining witnesses and collecting evidence was carried on with remarkable regularity and energy, so that, although a vast amount of valuable material was collected, the proceedings occupied actually less than a month. Public opinion had undoubtedly compelled the Lords of the Admiralty to appoint this Committee, and such being the case, it was natural that the public as well as the profession should await with great interest, and perhaps somewhat impatiently, the production of the Report. Interest and impatience have both been exhibited in a very emphatic manner, for during the past three months Mr. WARD HUNT has had at least five questions put to him categorically in the House of Commons on the subject, and there are yet three more on this week's paper of business of which notice has been given by Mr. MITCHELL HENRY. The Report has at length appeared, bearing date March 3rd, and we must assume that the document has been in their Lordships' official bureau for about ten weeks. We may anticipate a rejoinder to the effect that the evidence, the appendices, analyses, and special report of the medical members, as well as sundry official returns, could not have been collated, completed, and printed before Monday last. But who shall say that the Report ought not to have appeared before? There are precedents in abundance for publishing a report first, and the materials upon which it is based afterwards. The public know that more than fifty cases of scurvy have occurred among one hundred and thirty men, and that three men had died from the disease, and they want to know the reason why. Hence it appears to us to be not only a dilatory but a cruel proceeding to withhold information of this kind, or permit it to ooze out of the Admiralty precincts in an unauthorised and fragmentary manner. As we have before remarked, this unwarrantable delay has tended to unsettle the minds of many as to the value of old and well-proved prophylactics, and to shake beliefs that have in their practical results important bearings on the welfare of the general community, both ashore and afloat.

The Report is directed to the solution of three questions—(1) the cause of the outbreak; (2) the adequacy of the provision made by the Admiralty in the way of food, medicines, and medical comforts; and (3) the propriety of the orders given by the commander of the expedition for provisioning the sledge parties. As to the first point, the Committee find that the early outbreak of scurvy in the spring was due directly to the absence of lime-juice from the sledge dietaries, the long winter, the vitiated atmosphere, and the deprivation of fresh meat, acting as predisposing causes. As to the second point, it is found that the provision made in the way of food, medicines, and medical comforts, was in every respect adequate for the performance of this special service, and was more complete than that made for any previous Arctic expedition. As to the third point, the Committee find that the orders of the commander for provisioning the extended sledging-parties did not include lime-juice, thereby deviating from the 11th Article of Recommendations and Suggestions of the Medical Director-General, furnished by their lordships for his information, and that the reasons assigned for such deviation being insufficient, the said orders were not proper.

We give our readers the pith of the Report, and have not thought it necessary to italicise any of the above sentences, because the verdict given on each question is so superlatively plain, simple, and decisive, and, we may add, characteristic of the gallant admiral who presided at the Committee. But what will the public say to it? We mean the people who provide the "blue-jackets" for our Arctic and other expeditions, and provide them, too, with all the comforts and appliances that science and art can suggest? It must be remembered that the issue, as now before us, is not as between the commander and any of his officers (though as to this we shall have something to say presently), but between the commander and his chief at Whitehall, whose written instructions were disregarded, resulting in death to three, and a long course of sickness and misery to more than 40 per cent. of the men comprising the expedition. The Lords of the Admiralty are very properly, and of necessity, provided at head-quarters with skilled chiefs of departments, whose advice is sought as occasion requires. Previous to the departure of the expedition, Sir ALEXANDER ARMSTRONG furnished a memorandum of instructions, which was handed over to the commander of the expedition to be utilised and adopted in its entirety. The fact that it was disregarded shows not only a grave error of judgment (if not a breach of discipline), but also an absence of that appreciation of skilled knowledge with which one distinguished officer should credit another, whatever his special department of work may be. The present Medical Director-General has gleaned an amount of special knowledge as to Arctic voyages that can be surpassed by no officer of his own cloth in the service, and hence on this particular occasion the adviser was most eminently the right man in the right place. But his advice was disregarded, and his directions were cast aside. Some of our best sailors die, many are prostrated by an emphatically preventable disease, and the success of a grandly conceived and splendidly-arranged expedition is marred because (and it is the old story) the status of the medical officers, both at head-quarters and afloat, is not duly considered and supported by the combatant officers under whom they serve.

We shall take an early opportunity of summarising and commenting upon the valuable evidence and appendices that accompany the Report.

IT is desirable that the medical profession generally should understand with some degree of accuracy the nature of the dispute which has been carried on of late between the two sections into which the dentists of this country are divided.

The divergence in sympathy and instinct between these two bodies is very great, and their line of conduct has become antagonistic; and since this antagonism involves such important matters as the relation of their profession to the Royal College of Surgeons and the separate Government registration of their qualifications, it must be conceded that the present juncture is one of serious importance to the dentists themselves, and not without grave interest to all the other branches of the medical and surgical profession, with which dental surgery is, and ever must be, intimately associated. The dentists in this country constitute a very numerous, and now an important body, including among them many persons of thorough education, and some of substantial scientific attainments. But, as we have said, they are divided into two sections, with strongly divergent views, and such opinions as allow us, for the convenience of subsequent reference, to define them as the "dental surgeons" and the "dentists"; those, that is to say, who consider their profession as a branch of surgery, and those who regard their calling in its mere mechanical aspect.

The first serious effort in this country to raise the practice upon the teeth from the barber and his ally was made by HUNTER himself, and from his time there has been an ever-increasing tendency to associate that branch of the healing art, both by education and by attainments, with surgery and medicine. This movement had reached such proportions that some twenty years since the College of Surgeons determined to grant a separate licence to practise "dentistry," for gentlemen who had not the means or the opportunity of taking the membership of the College, and which, by surgeons practising as dentists, might or might not be added to their surgical diploma. But it was never held, either by the College of Surgeons or, at the time of its foundation, by anyone else, that this licence (not a diploma, as it is often erroneously called) should be taken as a substitute for higher surgical degrees, or as a means of discouraging such qualifications.

Now this is the point upon which the present difficulty has arisen, and which has divided the dentists in this country into two antagonistic sections. The dental surgeons, as a body, desire to elevate their profession, and to keep it at as high a position as possible, to claim for it the same rank and the same educational requirements as ophthalmic, orthopædic, or aural surgery; and, while accepting and fully recognising the value of the licentiateship, aspire to and encourage full surgical culture and diplomas. On the other hand, the dentists consider the L.D.S. a sufficient and the only desirable qualification (though a large proportion of their party have not even taken this modicum of title), and indirectly discourage the membership or fellowship of the College, and to support which doctrine they now seek to obtain from the Legislature a separate registration, to be shielded beneath the pages of the Medical Register under a new Act which they have sketched out, and to the absurd propositions of which we shall refer further on.

From what we can gather, it appears that the discord was initiated by the introduction at the Dental Board of a motion, the effect of which was to render the L.D.S. a *sine qua non*, and the only necessary qualification for teaching and holding dental appointments at general and special hospitals. We will not stop to inquire into the remote origin of this proposal, but we very much doubt if its drift and intention were clearly appreciated by the whole Board. It was, however, carried in a modified form, and afterwards adopted by the Council of the College.

This was the thin edge of the wedge, which the surgeons practising dental surgery were not slow in discovering; and though they have been blamed for memorialising the College of Surgeons on the questions involved, their prescience is vindicated by subsequent events: the separate registration scheme, and what it brings with it, are exactly the fruits which were anticipated.

What the dental surgeons desired to accomplish in sending their memorial to the College of Surgeons was that the education of the candidates for the L.D.S. should be entrusted to thoroughly qualified teachers, and to effect that object they suggested "that no schedule should be permitted to be signed by any lecturer on dental anatomy, physiology, or surgery, who does not hold the Membership or Fellowship of the Royal College of Surgeons, or at least some surgical diploma entitling its possessor to registration under the Medical Act."

This is of course a direct implication that the gentlemen who hold the licence to practise dental surgery are not the best qualified to teach others who desire to obtain the licence hereafter, and the question arises, Is this or is this not true? We are inclined to think that upon this point there can be no doubt; it is freely stated on the one side and admitted on the other that the attainments of the candidates for the L.D.S. at the College are, with some few exceptions, below a high standard, and that they are particularly deficient in those general medical matters of education which fit them to be lecturers. As this question in all its bearings is to be inquired into and judged of by a Committee from and of the Council of the Royal College of Surgeons, we would suggest to the Committee that a reference to the written papers of those who have taken the licence, which we believe are retained among the archives at the College, would enable them to say how far those persons are qualified to be the teachers of others. It is not in any unkindness that this allusion is made: the injury comes from those who would place the licentiates in a position for which they are not fitted, and who thus compel us to make this reference.

We now, in conclusion, come to the question of separate registration for the L.D.S. In this scheme, its authors, in their opposition to the dental surgeons, have shown their hand completely. Every card is now in view, and, unless we are vastly mistaken, a revoke is inevitable. Whether we look at the manner in which it has been brought forward, or its objects, it is difficult to speak of the project in terms of moderation, and we are, if possible, still more surprised at the impolicy of propounding such a design at the present juncture. The scheme involves separate registration for a single branch of surgery. If this is once permitted, where is it to end? If the dentists are to have separate registration under the Medical Act, why not the ophthalmic and the aural surgeon? And who shall define the scope and limit of the several specialties? The authors of this intended new Registration Act have already drawn its clauses, and have left no point in doubt. Not only is it protective as regards

the holders of the L.D.S., but it is prohibitory, and that offensively so, against all surgeons, all Members and Fellows of the English College, those who hold like degrees from Edinburgh or Dublin, and all Masters of Surgery from the Universities. This one narrow field of the healing art is to be held sacred to the monopoly of the gentlemen who, after a slender examination, hold the licence to practise as dentists, and that from the English College, who alone grants it; and if any, even the most accomplished surgeon, both by attainments and diploma from either of the colleges or universities, chooses to practise on the diseases of the teeth, he is to be liable to prosecution and fine, and to be incapable of recovering his fees. One other provision reads like an ill-conceived satire, but it is seriously intended, and that is the practitioner's title. If a surgeon elects to practise the surgery of the teeth, he is not to call himself a dental "surgeon" under legal penalties, but the licentiate is to do so though he is no surgeon at all!

Most remarkable of the whole is the singular indecorum and bad taste with which this registration scheme has been put forward. Whatever the Licentiates in Dental Surgery may be, they owe it all to the College of Surgeons, and are under deep obligation to the College; yet they have launched this project without any communication with the Council of the College, in defiance of its authority, and in violation of its well-known convictions on the subject of special registration. Meanwhile, it is with the principle of the reform proposed and the aim which all worthy practitioners in dentistry have in view, however much they differ amongst themselves, we are interested. Dentistry being a branch of surgery, we contend that those who practise the art must be surgeons first and dentists afterwards. In short, their special qualification should be supplementary to that which gives the right to practise surgery.

A PAINFUL case, which has recently occurred, of a fatal result following the use of chloral medicinally employed, has raised the question whether chloral is a safe hypnotic, and to what extent it may with advantage be employed in the treatment of delirium tremens. Chloral seems at the present time to be as popular a remedy with our profession as with the public; and it is only when some sudden fatal result occurs that attention is called to the dangers which may attend its use; and we are too apt to imagine that some special want of precaution or excess in dose has been contributory to the fatal issue. But a truer view would be that the doses habitually prescribed and sanctioned by eminent authority, and employed in our large hospitals and asylums, are in many cases excessive, and that, especially in the case of delirium tremens and of insanity, chloral is used to a needless and dangerous extent. Particularly is it so with delirium tremens and the various grades of alcoholic poisoning which are included under that term. Chloral in large or repeated doses is the routine, and oftentimes the exclusive, treatment to cut short delirium, to produce quiet and sleep, and to prevent those sudden outbursts of maniacal fury, which are sometimes so dangerous to the patient and his attendants.

It is time, then, that the profession should face the question—Is chloral a necessary, or even a safe, narcotic in cases of alcoholic poisoning, acute or chronic? Experience tends to the conviction that the practice of giving chloral in all such cases, and pushing it till it produces hypnotic effects, is one attended by immediate dangers, injurious in its ultimate effects upon the patient, and liable to great abuse on the part of nurses and attendants.

The cases of alcoholism in which narcotics are employed may, speaking roughly, be divided into three categories. A large number of cases occur in persons who, habitually moderate drinkers, or even abstemious, under the influence of excessive mental anxiety, or strain upon the nervous energies, or from some other cause, indulge in a prolonged drinking bout, which, with abstention from food, results in an acute attack of delirium tremens. In such cases the noisy violence of the delirium, the absence of sleep, and the general excitement of the whole system, seem to indicate the employment of sedatives, and, if combined with proper nutriment, quiet, and the withdrawal of stimulants, they no doubt conduce to a favourable issue. That such cases may be benefited by chloral we do not for a moment deny, but the doses need not be large, and should not be too often repeated; and we must add that the success of the treatment is proportioned to the amount of nourishment which can be given. Secondly, there are the cases of severe delirium tremens, usually the sequel of prolonged excess, rarely the first attack, and often arising only as the result of combined disease or injury and alcoholism, in which the constant restlessness, tremor, delirium, and jactitation, seem to threaten life by exhaustion, unless something be done to give temporary quiet and sleep to the patient; and in some cases, as, for example, of fracture liable to become compound, the local conditions render quiet essential. In these circumstances narcotics may be employed, but with great caution, for too often the quiet of sleep only passes into that of coma and death, and, as we shall see, chloral is not the safest drug in such cases. In a third class of cases the condition is one which is rather the result of continued excess than its direct effect. The nervous, restless, irritable condition, with or without slight tremor, with loss of appetite, constipation, and a craving for drink and drink only, exists during the day, and when night comes, this condition passes into one of restlessness, slight delirium with hallucinations, or actual violence. It is true that this state is rarely seen apart from the direct effects of alcohol. In most cases the passion for drink is so strong, the craving for it so subtle and irresistible, that no subterfuge or artifice is left untried to get hold of drink, and, apart from physical impossibility, such people will and do drink. In these cases, especially at the present day, and amongst the better classes, there is often a combined indulgence in alcohol and chloral, and chloral-drinking, first used to drive away the troubled dreams and hallucinations at night, is prolonged and increased, in order to permit of a freer indulgence in alcohol. Now, it is in such cases as these that the use of chloral, whether as a sedative or a hypnotic, is most injurious. As a sedative, in small and frequently-repeated doses, it may dull the senses and quiet the craving, but it aggravates and prolongs the gastric catarrh, which is one of the exciting causes of the craving, and it does nothing to restore the healthy tone and appetite. As a hypnotic it is in some

cases entirely ineffectual, even in large doses, and where it acts beneficially in this respect, the dose should never be maintained at a high level after one or two nights, but with proper repeated nourishment may be rapidly diminished or entirely withdrawn. But chloral has some special dangers in the case of drinkers, which should not be lost sight of.

Alcohol, as is well known, produces, when continuously employed, fatty degeneration of all the organs, and, amongst others, the heart; this more especially in some cases of spirit-drinking. Chloral, too, like its ally chloroform, probably gives rise to a fatty degeneration of muscular tissue, and in particular of the heart, closely analogous both in its mode of production and character to that due to alcohol. Again, as is well seen in some cases of delirium tremens, alcohol causes a fluid condition of the blood, in which the normal state of the blood-corpuscles, and their relation to the liquor sanguinis, are altered; and as a physical condition evidencing this we see the defective coagulation of the blood and its tendency to transude too readily. We are not here entering into the intimate relations of these changes, and the effect they have on oxygenation and tissue nutrition; it is enough for our present purpose merely to indicate them. Chloral has a like effect, and similarly causes gradual destruction of red blood-corpuscles; so that in chronic chloral poisoning purpura is of frequent occurrence. In toxic doses chloral was formerly said to destroy, first the cerebral, then the muscular, thirdly the respiratory, and finally the cardiac, functions. But this is certainly not true so far as concerns the usual result in suddenly fatal cases in the human subject, and modern research goes to disprove this view, and to show that cardiac paralysis, whether produced through the central nervous system or by a direct action on the heart, is the usual mode of death. And especially will this be the case when, from the effects of alcohol, or of continued chloral drinking, the cardiac muscle is already considerably degenerated, whilst at the same time the condition of the blood is such as to supply an imperfect stimulus to its contraction, and the impaired reaction between the blood and pulmonic capillaries affords an additional impediment to the circulation. In such cases sudden cardiac paralysis or asystole may put an end to life before any cerebral symptoms or retarded respiration have given the warning note of danger. Nor can any amount of negative evidence, derived from the absence of marked physical signs of organic disease, be sufficient to counterbalance the clear and decisive results of pathological investigation, which show how grave a degeneration may coexist with apparent health. And, be it remarked, such fatal results do not of necessity occur only after a large dose. In healthy subjects death has occurred in this manner from so small a dose as thirty grains; and there is abundant evidence that the toxic effects of chloral are cumulative in a higher degree than the hypnotic, and that this does not depend solely upon accumulation of the poison itself in the blood.

THE Mercantile Marine Hospital Bill was, as we prophesied it would be, rejected by a very large majority of the House of Commons on Wednesday. It was a crude and ill-considered measure, in which the Government had no sympathy, and its failure has, we fear, delayed still more any workable plan whereby healthy sailors may be assured, at all events at the commencement of a voyage.

Annotations.

"Ne quid nimis."

LOCAL EXAMINATIONS.

TOWARDS the close of the discussion on the last amendment (proposed by Dr. Rolleston) moved upon the fourth of Prof. Humphry's resolutions at the Medical Council on Wednesday, some remarks were made by Sir James Paget which will excite attention. The question before the Council was as to the proposed introduction of a primary examination upon elementary subjects at the end of the first year of professional study. The desirability of such an examination had been unanimously decided upon, but the mode in which it should be carried out was left for further consideration. Sir James Paget stated that the subject had been fully discussed by the Council of the Royal College of Surgeons, and, although that body had thought favourably of the proposition, there were so many difficulties in the way of enforcing it that they did not feel justified in introducing the scheme. There was the difficulty of increased outlay on the part of the licensing body, and, added to this, objections were based upon the time taken up by such an examination on the part of the student, as well as the expense entailed on students coming from the provincial schools. It was, therefore, suggested that in place of the licensing body undertaking the examinations, these should rather be held at the respective schools by the teachers on the various subjects in question, aided by assessors or examiners from the licensing centre. The effects of such a proposal are manifold, and were pointed out both by Sir James Paget and Mr. Lister, who supported the proposal. Mr. Lister reminded the Council that at its last session he had spoken of the gain both to students and teachers in allowing the latter to share in the examination. Mr. Lister contended that it would be a great advantage to the student, for it would enable him to know precisely the scope of the examination he would be required to pass, and the fact of the teacher having to examine his own pupils under the supervision of the examining body would be of material help to the former, and ensure a good standard of teaching. It will be obvious that the proposal involves an entire change of policy, and raises questions which need to be maturely considered.

THE WAR: THE RUSSIAN RED CROSS SOCIETY.

IN previous notes we have described some of the medico-sanitary arrangements of the Russian army in the field. The following refers to the measures adopted by the Russian Red-Cross Society for facilitating the removal of the sick and wounded from the seat of actual warfare into the interior of the country. For this purpose the country now being occupied by troops is divided into several zones. The first of these lies between the Danube and the Pruth. Here the Society has organised eight railway-trains for the conveyance of the sick and wounded, and ten ambulances. The second zone lies between the Pruth and the Danube. Here hospitals, formed of huts, each hospital to have 230 beds, are being constructed at the railway station of Korneschti and at the convent of St. Cyprien, nine versts from the station of Strascheni, and other hospitals will be erected if necessary at Ungheni, Sipoteni, Kischenew, and Bender. These hospitals are for the temporary reception of the wounded, who from their state cannot at the moment be sent further inland. A third zone extends from the Dniester to the Dnieper, and will also be furnished in case of need with hospitals for the wounded who cannot be carried further into the interior. A fourth zone commences at the Dnieper,

and includes the provinces of the interior. The transport of the wounded will be cared for by the local Red Cross Societies. The object the Society has in its arrangements is to remove the sick and wounded as rapidly as possible from the seat of war into the interior of the country, and to distribute them, as far as practicable, in their native provinces for treatment, retaining cases of necessity only in the zones nearest the army. In view of the requirements of the sick the Society has been providing immense stores of ice. For example, it has a store at Ungheni containing 80,000 lb., at Korneschti, Kipriani, and Kischinew, in each town a store of 100,000 lb.

THE HIGHBURY TRAGEDY.

AGAIN the perpetually recurrent question, "What is insanity?" has been raised by an appalling tragedy. A young man, having an obvious cause of grief and jealousy, exhibits symptoms of mental depression, procures a revolver, and after shooting the object of his ill-feeling, takes his own life. Were the murder and suicide committed under the influence of a morbid condition of mind, rendering the perpetrator of this double outrage unaccountable for his actions; or, was he simply the victim of uncontrolled malice, and therefore criminal? The jury empanelled to inquire concerning the mode of the suicide's death have returned a verdict describing him as insane. That settles the judicial question; but the medical issue is unaffected. The fact cannot be determined by the finding of an unskilled tribunal. We think it would be most disastrous if an impression became strongly fixed on the public mind that any person abandoning the control of his faculties may be excused for the consequences of his neglect. It is a social duty to discipline self. The notion that weak intellects are excused for misconduct on the slightest provocation is, we fear, becoming prevalent. It is in the last degree important that this ruinous dogma should be stigmatised as heresy. Disabling mental disease, undoubtedly, suspends responsibility; but the existence of insanity must, we think, be proved by evidence apart from the act it is sought to excuse. It is more easy to speak plainly on the topic as raised by this particular case, than when presented to notice in connexion with a deed for which some living man may be adjudged punishable. The point is one of great practical importance, and it should be fully discussed. Mere depression is not necessarily the fruit of insanity. A morbid desire of inflicting injury is not conclusive evidence of a condition ending in irresponsibility. Mercy leans to the side of leniency; but there is no guarantee of justice so solid as strict impartiality. Cases of this class should be rigorously investigated. It must be confessed we fail to perceive the proofs of mental disease in the history of the case as detailed before the coroner and jury.

COMPULSORY FORMATION OF COMBINED SANITARY DISTRICTS.

AT length the Local Government Board has taken the important step of making compulsory in one instance the formation of a combined sanitary district for the purpose of appointing a medical officer of health. On the 4th inst. it issued an order combining the several sanitary districts which have formed the united district known as the Mid-Warwick for the object referred to. Dr. George Wilson, the author of the admirable "Handbook of Hygiene," is the medical officer of health for this district; and it is well known that he, in common with other medical officers of health of combined districts, has been kept in a distressing state of uncertainty as to the future by the exceedingly anomalous conditions under which the office is held. It is quite optional with the authorities, except in the one instance to which this Order refers, to remain in combination or not; and any authority may, if it so please, on the merest caprice, withdraw, and subject the holder to the losses and disadvantages to which Mr. Alfred Haviland has been subjected, without any fault of his own, and without the possibility of protecting himself.

The Order now issued, the first, it is to be presumed, of a similar kind to be addressed to the authorities of all combined sanitary districts, directs the several sanitary authorities of the Mid-Warwick District to proceed to the election of a joint committee of twenty-five members, the number to be elected by each authority being stated in a schedule attached to the Order. The joint committee is empowered to elect a chairman and a clerk, to hold meetings, to "decide as to the period for which they propose to appoint a medical officer of health, and the salary or remuneration which they propose to assign to him," such proposal to be forthwith submitted to the Local Government Board for approval. When the approval of the Board has been given the joint committee will proceed to elect the medical officer of health. The medical officer will be subject to the regulations now in force as to his duties, and he will submit to the joint committee copies of every general report he may make as to the whole or to any part of his district. The Order gives all necessary details for giving effect to the arrangements, of which the cardinal points are here described.

Here, then, we have the first step towards giving real coherency to combined sanitary districts. The Order just issued meets, in the instance to which it relates, the most serious evil to which the medical officer of health is subjected under the commonly existing arrangements in these districts. That which has been done in the case of Mid-Warwick cannot justly be withheld from other districts of a like character.

"EVENTUALLY."

IN no one word would it be possible vividly to express so much as to the operation of the reforms effected by the General Medical Council as by the adverb which heads our present remarks, and which was suggested by a very illustrative incident in the sitting of Saturday last. The reforms will take effect, but it will be "eventually"—i. e., the effect will be in a remote future, and will be contingent on events and the progress of time. The Council has always been accused of being given more to talk than to work. This is a serious charge, that we have been always slow to make, but in no previous session has it received more striking confirmation than in the present, especially during the opening days. The discussion on the simple question of the course to be taken by the Council in reference to the registration of an honorary degree conferred by the Queen's University on Dr. Eustace occupied three hours, whereupon a conclusion of the most obvious character was reached. The law officers of the Crown in Ireland had given an opinion favourable to the registration of this degree. The solicitor for the Council, Mr. Ouvry, had given an opinion against its registration on grounds which will be gathered from our report, the chief of which was that prior to the reception of this honorary degree Dr. Eustace was not possessed of any medical qualification. Mr. Ouvry is confessedly an able and acute lawyer. But it was obvious, alike on the score of courtesy and prudence, that the highest legal opinion of Ireland could not be effectively met by anything less than the highest legal opinion in England. The Council requested Mr. Ouvry to deliver his opinion, which he did. Thereupon, for three hours the Council was allowed to talk about the matter, the learned members delivering their opinions on a point of law on which their opinion was

perfectly worthless. At the end of this time, and after more money had been spent in the most idle talk than would pay for the opinion of counsel, Professor Turner rallied the common sense of the members, and proposed, with the entire concurrence of the Council, "That the solicitor be requested to obtain the opinion of the law officers of the Crown for England as to the power of the Council to register honorary degrees."

There was a similar waste of three precious hours on Saturday on the discussion of a motion to relegate examinations in general education to the examining boards of the national educational and examining bodies. Motion followed motion, and amendment amendment, till members, though nearly all agreed, were all confused. There are still two or three of the medical examining bodies which adhere tenaciously to the old method of examining in preliminary education. The hour for rising was approaching, and Dr. Allen Thomson proposed, as a way out of the difficulty, the following motion, "That it is desirable that the examinations in general education be EVENTUALLY left entirely to the examining boards of the national bodies engaged in general education and examination recognised by the Medical Council." This motion was vague, and kind, and easy, and put no particular pressure on any body, and all seemed fair for its being passed. But unfortunately some antiquarian in the Minutes discovered that it had been passed by the Council exactly eighteen years ago. Up to this time it has not been realised, and the preliminary education of candidates in the professional examinations is still a serious scandal. And even now, though the resuscitated motion of eighteen years ago has not been passed, one equally vague and unbinding has obtained the sanction of the Council, which doubtless "eventually," some eighteen years hence, will receive a mild fortification.

THE TYRANNY OF STREET MUSIC.

WE are paving our thoroughfares with wood, at great expense, in order to spare our nervous systems the noise inseparable from stone roadways. A worse evil remains not only unmitigated, but daily increasing in severity. Street music is forced alike upon the ears of the sick and healthy, the brain-worker and the vacuous. The cultivation of a habit of abstraction is doubtless the most efficient safeguard against such an enemy, but this is only possible to the few, and even in them is liable to be overcome any day by impairment of nervous energy, due to some passing physical cause. But to the many the struggle to fix the attention, in spite of the jarring impulses upon the ear which constantly distract it, gives rise to mental confusion, irritability of temper, and sense of discomfort in the head, evidences of an exhaustion of nerve-centres which by frequent repetition tends to bring about lasting and disastrous changes in the brain-substance. The police are empowered, it is true, to protect us under certain circumstances, but practically, as is well known, the suffering ratepayer is helpless against the imported foreigners who perpetrate the outrage, and who are notoriously to a very large extent supported by persons not contributing to the rates, whose occupations are entirely of a manual character, and who are not, therefore, disturbed by sounds which defraud the thinker of a portion of his working time, and are simply destructive to the nervous invalid. Organs of various kinds, many of them requiring two attendants, are being imported in ever-increasing numbers, and women as well as men are now introduced to the unlicensed trade upon which "padrones" fatten. We are glad to learn that a society is being formed which will seek for the regulation of street music—not its abolition, which would be impracticable,—and that members of the various professions are enrolling themselves with the object of pressing for legislation upon the subject. For the present, communications should be addressed to S. M. R. S., care of Mr. Renshaw, 356, Strand.

THE PERSONNEL OF THE COUNCIL.

THERE are only two personal changes in the Medical Council this year; one negative, the other positive, but both very conspicuous. One is the absence of Dr. Stokes, the other the presence of Sir James Paget, Bart., F.R.S. As our readers know, Sir James Paget succeeds Mr. Quain in the representation of the Royal College of Surgeons of England, and has already justified the selection made by his College. The absence of Dr. Stokes, though too well anticipated by those who have witnessed his failing strength in recent years, is felt by all. It is not only that he had been a Crown member from the beginning of the Council, but there was an unfailing authority and wisdom in all his utterances, which, coupled with his urbanity and his great services to medicine, gave dignity to the Council. He is succeeded by Alfred Hudson, M.D., of Dublin, well known in Ireland as a consultant, and the author of several works on Fever—that subject which has served so much to illustrate the genius of Irish physicians.

HOSPITAL CELEBRATIONS.

THE anniversary festival of the University College Hospital was held on Wednesday last at Willis's Rooms, under the presidency of Sir Henry Thompson, who was supported by a large number of influential gentlemen. In the course of the past year 1600 in-patients and 45,000 out-patients had been treated at the hospital. Donations to the amount of £1500 were announced during the evening. The fiftieth anniversary of the Royal Free Hospital was celebrated on Wednesday at the Freemasons' Tavern, the Right Hon. Sir Alexander Cockburn, Lord Chief Justice of England, in the chair. Since the institution of this hospital it has relieved 1,637,574 patients. The Royal Infirmary for Women and Children, situated in the Waterloo-road, which has lately been undergoing extensive alterations, was this week formally opened by the Princess Louise, who was accompanied by the Marquis of Lorne.

REMOVALS FROM AND RESTORATION TO THE REGISTER.

IT is very satisfactory to know that the Council has removed from the Register the name of Thomas Richardson, who was registered on the strength of a degree purporting to have been obtained after due examination at New York, and dated Jan., 1858. If we mistake not, two other persons are on the Register in the same way, and it is to be hoped that they will be similarly dealt with. The Council saw its way, we think properly, after a very persuasive and eloquent appeal from Mr. Butt, Q.C., M.P., to restore the names of Michael Manus Sheedy and James Meehan.

PUBLIC HEALTH, IRELAND.

THE insufficiency of the present arrangements for the effective local sanitary administration of Ireland has not escaped the attention of the commissioners recently engaged in an inquiry concerning the local government and taxation of towns in that division of the kingdom. They especially note the very trifling remuneration given to the dispensary medical officers for carrying out the "onerous and invidious" sanitary duties thrust upon them. They dwell also upon the fact of there being no communication between the medical officer of health and the sanitary authorities on the one hand, and but casual communication with the "executive

sanitary officer"—to wit, the inspector of nuisances—on the other. Other anomalies of sanitary administration also attract their attention. These incongruities are less excusable in Ireland than in England, and the treatment of the dispensary medical officer, as the commissioners' remarks show, does not admit of the slightest palliation.

A NEW STREET PERIL.

THE dangers of the streets are so numerous that it seems scarcely possible they should be increased. A new peril has, however, been invented, and it is one against which the public will do wisely to be on their guard. A hand-cart, apparently devised to attract attention and scare the thoughtless, is drawn up before the door of a respectable house in a populous thoroughfare, and bedding is ostentatiously brought up the area steps to be removed for disinfection. The idea is excellent, the act irreproachable; but why make a parade of this sort of thing for the delectation of a crowd of wondering children and startled adults in broad daylight? It can scarcely be safe to shake the dust off infected bedding in a crowded thoroughfare; and it is the reverse of pleasant to be informed of the proximity of danger by a proceeding of this character. The removal of articles requiring purification should be effected at night, when there are few persons about and the risk can be minimised. The proceeding to which our attention has been called, and to which we have just alluded, occurred a few days ago in London. It is doubtful whether the local authorities of any other city, town, or populous district would have permitted an act of prudence to be so imprudently performed.

THE INTERNATIONAL MEDICAL CONGRESS.

WE have received the programme of the fifth session of the International Medical Congress, to be held at Geneva in the week Sept. 9th—15th, 1877. To those who would wish to combine study with vacation travel the projected arrangements for the Conference will offer a great inducement to journey Geneva-wards. Lebert, Zahn, Esmarch, Ollier, Marey, Broadbent (of St. Mary's Hospital), Vogt, Worlomont, and many other well-known physicians, propose to take part in the proceedings.

THE SMALL-POX EPIDEMIC.

IN the twenty large English towns dealt with in the Registrar-General's weekly return, 92 fatal cases of small-pox were registered during the week ending 12th May, against 97 and 62 in the two preceding weeks; 78 occurred in London, 4 in Liverpool (exclusive of one in the Toxteth workhouse), 3 in Manchester and Salford (exclusive of 6 municipal fatal cases in the Monsall hospital), one in Oldham, and one in Hull. No death from the disease was registered in any of the fourteen other towns. A considerable increase in the prevalence of small-pox was reported at Oldham, in which two fatal cases were registered in February, and five during the four weeks ending 12th inst. The Town Council does not appear to possess any hospital accommodation for the isolation and treatment of infectious diseases.

In London the fatal cases of small-pox, which had been 89 and 54 in the two preceding weeks, rose again to 78 in the week ending 12th, of which 45 were recorded in the Metropolitan Asylum Hospitals, 5 in the Highgate Small-Pox Hospital, one in the Herbert Hospital at Charlton, and the remaining 27 in private dwellings. Ten of the deceased small-pox patients had resided in Hackney, 9 in Paddington, 9 in Lambeth, 6 in Pancras, 6 in Camberwell, 4 in Bow, and 4 in Chelsea. The largest proportional increase of fatal cases occurred in West and South London. In the outer ring of suburban districts only three deaths from small-pox were registered, all of which occurred in West Ham.

The small-pox patients in the Metropolitan Asylum Hospitals, which had been 824 and 846 at the end of the two previous weeks, had further increased to 854 on 12th inst.; the number of new cases admitted during the week declined, however, to 219, from 246 in the preceding week.

Correspondence.

"Audi alteram partem."

THE ADMISSION OF WOMEN TO THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—Some explanation seems necessary on the part of those graduates of the University of London who, having already consented to the free admission of women to its degrees and honours, are now strongly opposed to their receiving medical degrees only, under the enabling Act of Mr. Russell Gurney. These graduates have been guilty of no inconsistency, but, on the contrary, have been acting in complete uniformity with their convictions, as the votes for the two objects have rested on totally different principles.

With very few exceptions, medical men and others conversant with the laws of physiology are of opinion that women are unfitted for the professions, and least of all for that of medicine. They are assured of this from a consideration of woman's nature, and are confirmed in their conviction by the attitude of their opponents, who offer no answer to their objections, but simply restate the proposition, of which they assume the correctness—the perfect equality of the sexes for any calling in life. They ignore a natural law by styling it artificial, and replace it by another of their own framing, the truth of which has yet to be proved.

When, however, the advocates of women throw back upon the objectors that women have never been allowed a trial in the race, that their incapabilities cannot be shown until their powers have been tested, this reason for affording them the opportunity seems so cogent, that I and some others have said, "Try; we will offer you no hindrance." This argument that women cannot be judged, as they have been debarred from all opportunity of manifesting their capacities, has found its chief exponent in John Stuart Mill. He seems to imply, in his "Subjection of Women," that by an artificial process founded on the laws of natural selection, woman has become the lovely creature so dear to the heart of man, but by some other process of education and training some other and superior being might be developed. One cannot argue against the possibility of this, but it is curious to remark how some people forget that a girl inherits from her father as well as a boy, and she again may transmit her good qualities to her son. Put the argument as you may, it means that women are asking for fair play and no favour; and I reply, "I for one will not deny it you." Sir W. Gull has said no more than this, and therefore it is somewhat unfair for him to be brought into Lord Granville's speech as an advocate for women entering the medical profession; he merely submitted to the justice-argument enforced by much external pressure, at the same time expressing his opinion strongly, as he has always done, against the fitness of women for medicine.

The present proposition to admit women rests on a totally different principle; it depends on the supposed especial aptitude of women for the practice of our profession, whilst the other is founded simply on the general law of justice and of equal rights for all. The two reasons were confounded together by the proposers of the resolution, and appeared to be represented in unequal degrees in the minds of Lord Granville and Mr. Lowe. The former, judging by his tone, was contemplating the special fitness of women for medicine, whilst the latter was advocating their admission to all degrees. The latter question is evidently not yet ripe for an answer by the Legislature, or a new charter would ere this have been obtained, and this is confirmed by the failure of the attempt to throw open the University of Edinburgh to women. In lieu of this, the case of medical degrees for women came before Parliament last year, and was

argued on the special ground of the fitness of women for the practice of our profession. Woman's peculiar capabilities were dwelt upon, based on her female qualities, no allusion being made as to her capacity for acquiring scientific knowledge by a single debater. First of all, it may be remarked that women are quite equal to men in all the qualities necessary for a professional life, and this argument failing, their advocates do not object to the inconsistency of supporting their claims on their special sexual merits. The Bill based on so large principles was carried, is now endorsed by the Senate, and is attempted to be thrust on the University in spite of the vast majority of the medical graduates being opposed to it. There is, therefore, no contradiction in voting for the admission of women on the broad principles of equality and opposing oneself to such an arbitrary and limited measure as this. I vote for giving women a trial on general grounds, not believing in their fitness for the different professions which they wish to practise. The attempt is not made, and I am then asked to vote for their admission to our profession for reasons based on their especial aptitude for it. To this I object.

It is well known that the objections used by medical graduates are founded on physiological laws, whilst the advocates of women base their arguments on social and political laws—of liberty, equality, and justice. In holding this position they ignore the rights of nature, and are assuming that their laws are applicable as between men and women, which is the very question at issue. There seems to be an absolute blindness to the consequences of women entering the profession, when we see their advocates urging upon those who are devoted to the principles of freedom to join with them in the effort to bring about a state of things which will necessitate the most odious and unbearable legislation. They will scatter natural laws to the winds and replace them by any number of artificial ones. Legislation will have to be carried on about questions of place, preferment, and sex, causing irritation, injustice, and rivalries to an infinitely greater extent than is said now to affect our infinitesimally small number of the community.

If the professions are thrown open, the law must be put in operation as to the advisability of medical women holding posts of trust, such as parish appointments, in which they will have to attend inquests, make post-mortem examinations on men, &c., and require an occasional absence from office for maternal duties. The advocates of freedom could not of course feel these objections, but would insist on any woman being allowed to compete with man for such an appointment. If women are to practise at the Bar legal enactments will again be required, first of all as to whether she may rise to the Bench, and if so, it must follow that no married woman can hope to succeed to this elevation. What heartburnings this will bring to the married childless woman who has been the favourite leader in court! I assume of course that no amount of sentimentality will allow the High Courts of Judicature to stand still whilst the judge goes home to be confined. As to the Church, the difficulties of women entering that will perhaps be not so great and need no efforts of legislation. There appears to be no natural impediment to a woman preaching or conducting a religious service, nor I apprehend to her being raised to the bench of bishops. There may perhaps be a difficulty unknown to me in the transmission of apostolic authority or influence through a female, unless the question has already been determined by the case of Pope Joan. At all events, it is clear that on the principle of the rights of all, independent of sex, the natural and instinctive laws which have hitherto regulated society are to be put aside, and any number of petty legal enactments will have to be framed in their stead, at every step a woman takes forward in the exercise of her profession. To lead her on in the path of success and then arrest her because she is a woman, will be inconsequential and gross injustice. Yet it must inevitably be done. How any man of liberal tendencies, as most graduates of the University of London are supposed to be, can contemplate with equanimity the necessary result of the mixing of the sexes in professional rivalry, it is difficult to conceive. Parliament will be fully occupied in the most odious legislation. The only explanation I can offer for the remarkable phenomenon is that graduates in arts do not believe the statement of doctors, that women bear babies, or if they do know it they trust that by some new mode of training and culture (the philosophers say the *zeitgeist*) a new order of things may perhaps come about. In this view perhaps some agreement might be found between us all.

It might be thought, with such opinions as I have expressed, that I hold my vote for the admission of women to the rights of the University upon the slenderest tenure. I confess to this, being aware that it is only by blinding one's eyes to the consequences and yielding to the force of an argument, false as I believe the premisses are, that I grant their request. I feel it quite possible that I have no right to grant this, and ought rather to know that the rule of equality between men and women does not apply when the facts of nature stare me in the face and give it the lie. It is a serious matter to assist in an undertaking which may tend to shake the foundations of society, which now rest on instinctive laws of nature; to break down barriers which cause obstruction to an infinitesimally small number; to raise a number of others; to cause annoyances and irritations which society will not be able to bear. If the reader smiles at all this, and says it will and can never occur, then the answer is obvious. Why upset the whole machinery of colleges and universities for the sake of a few amateur doctors, fancy lawyers, and job parsons? Surely the play is not worth the candle.

I know of no one who is more wedded to Liberal principles than myself (my friends even call me a Radical), but I maintain that all social and human laws must have a basis in nature. I hold that "no favour and fair play" is not applicable as between man and woman, that the social laws apply only to the *genus homo*, which is made up of two beings whose characteristics supplement one another. The advocates of the rights of women assume that a large political doctrine can be used as between the sexes, which is the very point for discussion and fair argument. For my own part, I like freedom and equality, and hate repressive laws of any kind, and therefore, arguing on the largest political principles, I prefer the present system rather than one which will necessitate legislation of the most odious kind. When I speak of laws of nature I am fully aware that there is no analogy between them and laws of man's construction; the former cannot be broken, although we may come in collision with them to our own discomfiture.

In conclusion, I cannot forbear from expressing my feelings as to the sadness of the spectacle of graduates of a learned University throwing out suggestions that low and sordid motives actuate the medical faculty in its opinion as to the unfitness of women for its profession. These graduates will not, or perhaps cannot, see the physiological arguments, but this does not compel them to judge others by their own narrowness. The kind of advocacy they have used has already borne its fruits in strengthening the phalanx of their opponents, and assisting in producing the well-marked majority of votes, as seen in the division of Tuesday.

Your obedient servant,

Grosvenor-street, May 12, 1877. SAMUEL WILKS.

THE DENTAL REFORM ASSOCIATION.

To the Editor of THE LANCET.

SIR,—I am sure your readers in general must be heartily tired of the lengthy controversy carried on in your pages in regard to dental politics, and I should consider further intrusion unwarrantable were it not that Mr. Tomes brings against me serious but happily most unwarrantable charges. In the first place, I am accused of a change of opinion, in itself a small matter, were it not associated with the much graver insinuation of having received students' fees for carrying out principles I have latterly renounced, a charge which I am sure Mr. Tomes, on sober consideration, will regret having ever made.

From the earliest period I decided to adopt dental surgery as a profession to the present moment, I have never altered my opinion in regard to the desirability of every dentist being a fully qualified medical man, and my own course in regard to that opinion will prove my consistency. When the dental diploma was first established I regarded it, as I do now, as an admirable test for proving the technical knowledge of the possessor, and one most desirable to be obtained by all practising the specialty of dental surgery. These views I have, as facts can fully bear out, consistently urged on all occasions since I was elected a member of the staff of that special hospital to which Mr. Tomes refers, and of which I have now the honour to be senior medical officer; and I am happy to state that I have in many instances been the means of inducing its students to obtain that to which I myself owe more than to anything else any success I may have attained to in my pro-

fessional career—viz., the possession of the M.R.C.S. The hostile association, as Mr. Tomes is pleased to call a body of which I am at present the treasurer, entertains in general my opinions as expressed.

In regard to a second charge—viz., Mr. Cartwright's, and my *opposition* to the Dental Reform Association, I can only ask your readers to inquire for themselves, if they care to do so, and they will find that its committee worked most harmoniously and unitedly until the first meeting of Mr. Tomes's attendance, and when he upset what had already been agreed to, necessitating the resignation of Mr. Cartwright and myself, also of Mr. Saunders and Mr. Gaine. The only other charge to which I will refer is my objection to the registration of the special—*i.e.*, dental diploma. Mr. Tomes must be fully aware I have never for one moment offered any such objection; on the contrary, I most fully uphold it, and all I have ever said or done will go to prove it. In conclusion, I am truly pained to be compelled in justice to myself to have to defend charges emanating from one from whom in times past I received the greatest kindness both as a friend and an instructor, and of whose scientific achievements I should only be too proud to be the possessor.

I am, Sir, yours, &c.,

South-End, May 14th, 1877. A. COLEMAN.

*** We have also received letters on this question from Mr. S. Cartwright and Dr. J. Smith, of Edinburgh, the publication of which we are compelled to postpone until our next issue.—ED. L.

IDIOTS IN WORKHOUSES.

To the Editor of THE LANCET.

SIR,—Your article on "Idiots in Workhouses" in THE LANCET of April 28th calls attention to a question of great and pressing interest. Special institutions are needed in which these cases should be trained, not only with respect to educational but also to industrial attainments, in order *at least* to make them contribute something towards their support. Experience has shown that this object can be fulfilled. In a workhouse no provision exists for the carrying out of either of these objects. In the Metropolitan Asylum District special institutions have been provided for the education and subsequent training of idiots, which have fully realised the purposes for which they were erected, and it is desirable that this system should be extended throughout the country. During last summer a committee, appointed by the Charity Organisation Society, composed of statesmen, philanthropists, and medical men, engaged in the treatment of idiots and imbeciles, met several times to consider the best means of providing for the education and care of this class of cases. Their resolutions have been embodied in a report, which is to be presented to the president of the Local Government Board on the 17th inst. That report recommends that the provisions already made, and for some years past carried out in London for the above object, should be extended throughout the country. When it is considered that there are in England upwards of 10,000 idiots and imbeciles under twenty years of age who require training, and upwards of 20,000 imbeciles above this age, who, from not being trained in early life, are to a great extent useless, it seems desirable that measures should be taken to remedy this defect without delay.

I am, Sir, your obedient servant,

FLETCHER BEACH, M.B. Lond.,

May 7th, 1877. Medical Superintendent Clapton Idiot Asylum.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

Wednesday, May 9th.

HOSPITALS FOR THE MERCANTILE MARINE.

Captain BEDFORD PIM moved the second reading of a Bill which proposed to establish Hospitals for the Mercantile Marine, along with a system of compulsory medical inspection, supported by a contribution of 5 per cent. from the seamen's wages. It was supported by Mr. Wheelhouse, Mr. Whalley, Mr. Biggar, and Sir J. Wilmot, and opposed as impracticable and oppressive by Mr. Whitwell, Mr. Gorst, Mr. E. Smith, and Sir C. Adderley. On a division it was thrown out by 212 to 11.

Thursday, May 10th.

NUISANCES.

Mr. A. MILLS asked the President of the Local Government Board whether, having regard to the terms of the Public Health Act, 1875, section 91, it was necessary, when summary proceedings against a nuisance were taken, to show that the nuisance complained of was injurious to health.

Mr. SCLATER-BOOTH.—By the 91st and following sections of the Public Health Act, 1875, a summary remedy is provided supplementary to the proceedings against a nuisance which may be instituted at Common Law or in Equity, but although the disjunctive word "or" is used in the section—viz., "a nuisance or injurious to health"—the Court have held that, looking to the whole scope of the Sanitary Acts, some injury to health must in all cases be proved. It was proposed by the hon. gentleman when the Public Health Act of 1875 was passing through Parliament to make the disjunctive proposition stronger by prefixing the word "either" to "nuisance," so that the sentence would have run "either a nuisance or injurious to health," &c.; but the highest legal authorities were of opinion that the same construction as before would, nevertheless, be adopted by the Courts. I am glad to say that the whole subject of noxious trades and vapours is now under the consideration of a Royal Commission, who will probably report within the present session of Parliament.

Obituary.

WILLIAM COULSON, F.R.C.S.

ON the 5th of May, the subject of this notice died, in his seventy-sixth year, at No. 1, Chester-terrace, Regent's-park, and on the 9th his remains were borne to their resting-place in the cemetery at Kensal-green. Born at Penzance, Cornwall, in the year 1802, his early education was obtained at the grammar-school in that town, where he evinced, according to the testimony of one of his tutors, much ability, diligence, and attention in his studies. The instruction afforded at this school was almost purely classical; but, although only about fourteen years of age, young Coulson foresaw the desirability and importance of a knowledge of modern languages. He therefore repaired to Brittany, where he remained long enough to acquire an intimate acquaintance with the French language and literature. On his return to his native town he was, according to the custom of that time, apprenticed to a surgeon, Mr. Berryman; but, so rapid was his progress, that some time before the expiration of his term of apprenticeship, he entered as a pupil at Mr. Grainger's School of Anatomy in the Borough, and shortly afterwards attended the practice of St. Thomas's Hospital. It was during the time that he was acting as dresser to Mr. Tyrrell that Coulson attracted the notice of Mr. Wakley, who had just started THE LANCET, and who was at that time manfully struggling against the attempts made by many influential persons to prevent the publication in that journal of reports of lectures and of the notes of cases treated in the hospitals. Coulson at once began to report hospital cases in THE LANCET, and was in a short time elected a member of the editorial staff. In 1824, having completed his anatomical studies in London, he migrated to Berlin, where, during a residence of two years, he made the best use of the advantages and opportunities which the Prussian capital then afforded, and formed a friendship with many of the distinguished men who taught in her schools, such as Rudolphi, Rust, and others. On returning to London in 1826 he was admitted a Member of the Royal College of Surgeons, and soon afterwards took part with Tyrrell, Jones Quain, Lawrence, and Wardrop, in the formation of the Aldersgate School of Medicine. At this time, too, he was actively engaged on THE LANCET, having the entire charge of the foreign department, for which his long residence in different parts of the Continent and his

large acquaintance with French and German literature particularly fitted him. But these labours did not exhaust or even satisfy his zeal and energy, for in 1827 he revised and augmented the second edition of Blumenbach's "Comparative Anatomy," the first edition of which had been translated by Lawrence in 1807, and translated Edwards's "Manual of Surgical Anatomy," to which he added a considerable number of notes. Tracing his history onwards we find him in 1828 made surgeon to the General Dispensary, and in 1830 consulting-surgeon to the City of London Lying-in Hospital, where he enjoyed unusual opportunities of studying the puerperal affections of the joints. His investigations of those diseases did much to correct the opinions which then obtained respecting their nature and pathology, and his experience, recorded in the second edition of his well-known work on "Diseases of the Hip-joint," was regularly appealed to by both English and continental writers. About 1830 he was elected to the board of the Sea-Bathing Infirmary at Margate, of which he was always one of its most active members. In 1833 he unsuccessfully contested with Mr. Curling for an assistant-surgeoncy at the London Hospital. But instead of discouraging him, this defeat seemed only to stimulate him to still greater professional activity. His practice rapidly increased, and he soon found it necessary for professional purposes to remove from Charterhouse-square, where he began practice, to Old Jewry, at that time an important and notable part of the city.

Notwithstanding the calls which his practice now made on his time and energies, he still found leisure to work in several special departments of surgical practice and to record his experience. In 1836 he brought out a work on "The Deformities of the Chest"; in 1837 one on "Diseases of the Hip-joint"; and another, in 1838, on "Diseases of the Bladder and the Prostate Gland," the second edition of which appeared in 1840. This work ultimately reached its fifth edition. Aston Key, who had long enjoyed great eminence and a large practice in the City—St. Helens, Bishopsgate—died in the year 1849, and after this Coulson undoubtedly had a considerable accession of practice, and he succeeded Key as consulting-surgeon to the German Hospital.

On the completion of the charter which founded the Fellowship of the College of Surgeons Mr. Coulson was elected amongst the first batch of the Fellows in 1843. In 1851 he became a member of the Council, and in 1861 he had the honour of delivering the Hunterian Oration.

When St. Mary's Hospital was established Mr. Coulson was elected senior surgeon in 1851. This post he occupied for many years, and on retiring from the surgeoncy he was made consulting surgeon. In 1852 he published his work on "Lithotomy and Lithotrity." This was perhaps one of the most practically serviceable of Mr. Coulson's works, and it attracted great attention from the clear and able exposition which it gave of the relative value of these two modes of dealing with a vesical calculus. It brought to him a large amount of practice, and the more especially so as Aston Key had up to the time of his death enjoyed the reputation of being the best lithotomist of the time. Mr. Coulson performed a large number of operations of both kinds, and attained as good success as any of his *confrères* in that branch of surgery.

In addition to these systematic works Mr. Coulson contributed articles to Costello's Cyclopædia and to Lane's edition of Cooper's Surgical Dictionary, besides papers on a variety of subjects, notably on Bursæ, on Hysterical Affections of Joints, and on Perineal Section.

These works sufficiently attest, by their number and variety, the deep interest which Mr. Coulson felt in his profession, and the large amount of time and energy which he devoted to its advancement. Perhaps no man ever worked harder in his profession, whether in its practice or its literature. Indeed, he seemed to have inherited a taste and tendency to literary pursuits, his father being for many years the friend and associate of Sir Humphry Davy, and his mother a distinguished member of the Borlase family, and sister of Dr. John Bingham Borlase, who is reputed to have assisted and directed the early studies of the illustrious philosopher and chemist just named.

The whole tenor of Mr. Coulson's life was instructive. He had large subjective powers, and ruled in the circle in which he moved. Possessing an inflexible will and indomitable perseverance, he was occasionally rigid, stern, and intolerant, but the generosity of his disposition quickly prevailed over these harsher qualities, so that there was in his mind no place for resentment. His active sympathy was easily aroused and his efforts to relieve the oppressed never abated. "That man must not be lost for want of an effort to save him," he has often said when he had suspected foul play, and from that moment his whole energies would be concentrated to its defeat, to the entire abnegation of other pursuits and even of rest. Rest indeed to him was little more than a myth. As it interfered with his purposes so he did not needlessly succumb to it. His natural activity became a passion, rest a disturber. Long before the dawn of morn in winter, and not long after it in the summer months, at a specified hour his servant called him, at his residence in Chester-terrace or elsewhere, and his faithful housekeeper had his first meal ready in the Old Jewry as the clock struck eight and the carriage brought her master simultaneously to the door. An old attached friend, who breakfasted with him once a week, has told the writer of the mock reproachful manner in which he would find him standing at the door, with chronometer in hand, pointing to a lost minute, which however, to the credit of his friend, was only a very occasional occurrence.

The maxim of life, on which Mr. Coulson constantly insisted, and by which he admitted he had himself been guided, was that of consistency with his own nature. "You must work out your own individuality," was his advice to his young friends. He felt that it was not for a man to rearrange the native elements of his character, or to disturb their natural harmony, excepting where these in any instance were likely to oppose themselves to the restraints of morality; but to accept them as they are, and to render them, to the best of his power, subservient to virtue and usefulness. Another trait in his character was his sense of respect for obligations. An ordinary promise was to him not less binding than the most solemn vow; and knowing the tendency to vacillation in the mind, and the constant interference to which, with the best intentions, busy men are beset, he urged, as he himself practised, the habit of never making a promise if it was avoidable. But, perhaps, the strongest characteristic of his life, as well as its regulating power, was the abiding and imperative sense of duty by which he was governed, and this was ever associated with a love of order and method. That he never violated any of these principles it would be absurd to affirm, inasmuch as it would be to leave him in the minds of our readers as more than human, and, indeed, a type of a perfect man. To refer to his weak side would be, however, useless, for it would in no way deteriorate his character as a man and a Christian, nor would it cast any discredit upon the principles upon which its performances were based.

Mr. Coulson was a social man. He ever had a choice circle of friends, and with these his wont was, as a relaxation from his duties, to eat, drink, and be merry. At his table, on these occasions, were at all times to be seen men of mark—Barham, Francis Newman, his brother (Mr. Walter Coulson, the eminent barrister), and other literary men of the day—most, alas! now gone. After his marriage, artists of celebrity were included amongst his guests, attracted by the great taste and skill in painting, as well as the fascinating manner and unusual intelligence of Mrs. Coulson. Amongst their artist friends, one mourns their loss who was wont frequently to adorn their board, and whose name is still associated with art—Miss Fanny Corbeaux.

In politics Mr. Coulson was a Liberal, and an admirer and, to a certain extent, a disciple of the late Mr. Stuart Mill. In literature he was, in his palmiest days, an earnest student and admirer of the works of Thomas Carlyle; whilst in religion, Maurice and Hare, and lately Stopford Brooke, were of that class of men whose views he mainly acquiesced in. His figure will long be remembered by those who knew him, and by many others whose notice must have been attracted in the City by a tall, slightly bent, portly gentleman, with features rendered strong by deep furrows along the sides of his mouth and around the chin, wearing gold spectacles, and ambling along quickly from the Old Jewry to the Bank or elsewhere, usually in the habit of consigning his last fee to its temporary resting-place.

In duty, and in the work it enjoined, his life was pleasantly spent. From the lowest round of the ladder he

raised himself by industry, perseverance, and skill to a high one, if not the highest. He made money in his profession, and acquired it from other sources; so that he leaves behind him a good name, good works, and a good inheritance.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners during the present week:—

Henry Elliott, Newcastle-on-Tyne; Joseph M'Clelland and Arthur A. Woods, Belfast; Henry H. Sturge, Edward Fielding, G. J. W. Flower, Richard E. B. Morse, Francis A. P. Knipe, Charles J. Harper, John G. Barnes, Thomas B. Cross, H. W. Gosse, Thomas A. J. Howell, Fredk. O. Combe, Sydney R. H. Mathews, Charles H. Downes, Alfred Scott, Edward S. Cockell, James J. Reynolds, and Frederick T. Bayes, Guy's Hospital; Louis C. Parkes, Francis Gotch, George E. Twinam, and Frederick Wilde, University College; William H. Walter, A. B. Payne, Alfred Slate, James Higson, Charles F. Budd, Nicholas Elliott, Henry G. G. Wilkins, James Edwards, Herbert F. M. Pope, and Alfred H. Bock, St. Bartholomew's Hospital; Edward T. Collins and Vincent A. Jones, Birmingham; Donald T. Hoskyn and Henry C. Wilson, London Hospital; James D. Davies, St. George's Hospital; George H. Broadbent and John Allnutt, Manchester; Maro Tuchmann, Berlin; Martyn Read, Cambridge; Charles H. Murray, M'Gill College and St. Thomas's Hospital; Samuel Nall, Cambridge and St. Bartholomew's Hospital; William P. Bothamley, Evan N. Davies, John Cock, Richard Steele, Thomas H. Morse, Frederick B. Bayer, Frederick J. Elliott, Josiah E. Viney, Charles Crossley, Alex. P. Lungley, James S. Smith, and William H. Sercombe, Guy's Hospital; Andrew Chillingworth, St. Bartholomew's Hospital; Edgar English, London Hospital.

For the Pass Examination for the Membership of the College, which commences this day (Friday), there are upwards of eighty candidates.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on May 10th:—

Beard, Spencer Francis, Norwich.
Hodge, Arthur, Liskeard.
Jervis, Henry Pruce, Bombay.
Miller, Richard Shalders, Wisbeach.

The following gentleman also passed the Primary Professional Examination:—

Leftwich, Charles Harcourt, St. Barthol. Hosp.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the licences in Medicine and Midwifery at the May examinations:—

MEDICINE.—Albert Andrew, Louisa Atkins, Michael Francis Cox, William Rees Davies, Charles Scovell Grant, Sophia Jex-Blake, Charles Knox, James Chas. Harding Peacocke, Mary Edith Pechey, Alexander Philip, Thomas Edward White.

MIDWIFERY.—Albert Andrew, Louisa Atkins, William Rogers Connolly, Michael F. Cox, Chas. S. Grant, Sophia Jex-Blake, Charles Knox, Robt. M'Ivor, James C. H. Peacocke, Mary Edith Pechey, Alexander Philip, Thomas Edward White.

THE annual meeting and dinner of the Birmingham Medical Society will be held on Friday, May 25th, at four o'clock P.M., at the Hen and Chickens Hotel, Birmingham, under the presidency of Dr. Balthazar Foster.

THE Belgian Chamber of Deputies has voted funds for the purpose of providing the Royal Observatory at Brussels with an exactly similar clock to the "New Standard" recently erected at the Royal Observatory, Greenwich. The Belgian clock is to be constructed by the same makers, Messrs. Dent and Co., of the Strand, London.

THE ex-Registrar of the Medical Council, Dr. Francis Hawkins, has presented to each of the clerks of the Medical Council, Messrs. Roope and Bell, a very good photograph of himself, by Messrs. Barraud and Jerrard, photographers, Gloucester-place. This little incident speaks well for both parties after a co-operation of eighteen years.

BRITISH ASSOCIATION FOR SCIENCE.—A meeting of the Fellows and Professors of Trinity College, Dublin, was held on the 7th inst., for the purpose of making arrangements for the reception of the British Association in Trinity College in 1878, when it was decided that the College of Physicians of Ireland should be invited to form a similar reception committee. We understand that a meeting will be held on Monday, May 28th, in the Lending Library, Museum-buildings, in order to move the city authorities and citizens to aid in making the necessary general arrangements for the meeting of the association.

OBSTETRIC BAG.—Messrs. Millikin and Co., of St. Thomas's-street, Borough, have introduced a useful little bag for carrying midwifery instruments, which they term the "G. P. Midwifery Bag." Although small, it will easily carry a pair of long forceps, Dr. Barnes's craniotomy instruments, blunt hook and cotchet, enema syringe, scissors, &c., besides two or three bottles. The bag is lined throughout with wash-leather to prevent rusting, and the outside is of strong black leather. The measurement is 5 in. high, by 16 in. long.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The last meeting of the twenty-first session was held on the 4th inst., at the Royal Kent Dispensary, Greenwich, W. Johnson Smith, F.R.C.S. (Senior V.P.), in the chair. The following cases were brought forward for discussion:—Dr. F. MOOD, cases of Uterine Fibroids; Dr. R. Gooding, case of Prostatic Disease; Dr. Hitchcock, case of Acute Orchitis; Dr. H. Wilcox, Treatment of Chronic Leg Ulcers; Dr. A. Anderson, Simarubra bark in Dysentery; Mr. H. G. Cable, case of Aortic Aneurism, with pathological specimen. The annual dinner will take place on Thursday, June 28th, at the Ship Hotel, Greenwich, at 6 for 6.30 P.M. precisely.

Medical Appointments.

ALEXANDER, T. A., L.K.Q.C.P.I. & L.M., L.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Watton District of the Wayland Union, vice Sprigge, deceased.

BLAIR, R., M.D., C.M., has been appointed Assistant-Surgeon to the 28th West Riding of Yorkshire Rifle Volunteers, vice Morris, resigned.

BRUMWELL, J. P., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Ravonstonedale District, and Public Vaccinator for the Kirkby-Stephen Vaccination District, of the East-Ward Union, Westmoreland.

COLLINS, W. E., M.R.C.S.E., has been appointed a Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Blackader, whose term of office has expired.

DAVY, R., F.R.C.S., has been appointed Joint Lecturer on Surgery at the Westminster Hospital with Mr. G. Cowell, F.R.C.S.

DE FONMARTIN, Dr. H., has been appointed a Physician to Out-patients to the General Lying-in Hospital, York-road, Lambeth, vice Hayes.

DOWNING, W. C., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the West Sub-district of the Queenstown Dispensary District of the Cork Union.

FENWICK, C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House-Surgeon to the Teignmouth, Dawlish, and Newton Infirmary, vice Etheridge, resigned.

GRAY, J. A., M.A., M.B. & C.M., has been appointed a Resident Physician to the Royal Infirmary, Edinburgh.

HARDYMAN, C. E., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer for Out-patients to the Glamorganshire and Monmouthshire Infirmary, Cardiff.

HAYES, T. C., M.B., M.R.C.P.I., has been appointed a Physician to the General Lying-in Hospital, York-road, Lambeth, vice Hutton.

HILL, R. B., M.B., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the No. 3 or St. Blazey District of the St. Austell Union, vice MASON, resigned.

HODGES, F. H., M.R.C.S.E., has been appointed Honorary Ophthalmic Surgeon to the Leicester Infirmary.

HUTTON, C., M.D., M.R.C.P.I., has been appointed Consulting-Physician to the General Lying-in Hospital, York-road, Lambeth, vice Cape, deceased.

JONES, L., M.B., M.R.C.S.E., has been appointed Medical Officer for the No. 2 District of the Llanelly Union.

KIRKWOOD, J., M.D., has been appointed a Medical Officer and Public Vaccinator for the Parish of Alloa, Clackmannanshire.

LACY, C. Sethward de Lacy, M.B., M.A., M.R.C.P.I., has been appointed Physician-Accoucheur to the St. George Provident Dispensary, vice Godson, resigned.

MACPHAIL, D., M.B., C.M., has been appointed a House-Surgeon to the Western Infirmary, Glasgow, vice Macpherson, resigned.

MARTIN, Mr. S. D., has been appointed Junior House-Surgeon to the Bootle Borough Hospital, vice Smith, resigned.

MOYES, J., M.B., C.M., has been appointed a House-Physician to the Western Infirmary, Glasgow, vice Dun, resigned.

NEWMAN, Mr. D., has been reappointed a House-Surgeon to the Western Infirmary, Glasgow.

OGLE, J. W., M.D., F.R.C.P.L., has been appointed a Consulting-Physician to St. George's Hospital, on resigning as Physician.

RITCHIE, A. F., M.D., C.M., has been appointed a Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Greenish, whose term of office has expired.

ROBERTS, A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Bingley (Local Board) Urban Sanitary District, vice Milligan, deceased.

ROSS, J., M.B., C.M., has been appointed a House-Surgeon to the Western Infirmary, Glasgow, vice Owen, resigned.

ROXBURGH, R., M.B. &c., has been appointed a Resident Surgeon to the Royal Infirmary, Edinburgh, vice Cheyne, appointed a Demonstrator of Anatomy.

SERVICE, J., M.B. & C.M. (late of Belvidere Fever Hospital), has been appointed a House-Physician to the Western Infirmary, and Assistant-Surgeon to the Dispensary for Skin Diseases, Glasgow, vice Moffat, resigned.

SHEARER, F., M.B., C.M., has been reappointed a House-Physician to the Western Infirmary, Glasgow.

STRATON, C. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Wilton Urban Sanitary District, vice Bennett, resigned.

THOMAS, J. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Workhouse, and Medical Officer and Public Vaccinator for the No. 1 District of the Llanelly Union, and Medical Officer of Health for the Llanelly Rural Sanitary District, all vice B. Thomas, L.R.C.P.Ed., F.R.C.S.E., deceased.

TOWNSEND, R. H., M.B., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the East Sub-district of the Queenstown Dispensary District of the Cork Union.

VACHELL, C. T., M.D., L.R.C.P.L., has been appointed a Medical Officer for Out-patients to the Glamorganshire and Monmouthshire Infirmary, Cardiff.

WALLACE, T., M.D., M.R.C.S.E., has been appointed a Medical Officer for Out-patients to the Glamorganshire and Monmouthshire Infirmary, Cardiff.

WARREN, Dr. C., has been elected Honorary Surgeon to the Birmingham Institution for Deaf and Dumb Children, vice Baker, resigned.

WATSON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Whittingham District of the Rothbury Union, vice Robertson, whose appointment has expired.

WHITELEGGE, B. A., M.R.C.S.E., B.Sc., has been appointed House-Surgeon to the Clinical Hospital and Dispensary for Children, Manchester, vice Bourke, resigned.

WILLIAMS-MORRIS, D., L.K.Q.C.P.I. & M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the B District of the Thrapston Union, vice Spurgin, deceased.

WILLMOTT, J. J. E., M.B., M.R.C.S., has been appointed Honorary Medical Officer to the West of England Sanatorium, Weston-super-Mare, vice Earle, resigned.

WILSON, R., M.D., has been appointed a Medical Officer and Public Vaccinator for the Parish of Alloa, Clackmannanshire.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On the 8th inst., at Southborough, Tunbridge Wells, the wife of William Fairlie Clarke, M.D., of a son.

COKE.—On the 4th inst., at Ashford, Kent, the wife of William Harriott Coke, L.R.C.P.L., of a son.

CURGENVEN.—On the 9th inst., at Friar-gate, Derby, the wife of William Grafton Curgenven, M.D., of a daughter.

DUNLOP.—On the 5th inst., at Gravesend, the wife of Robert Dunlop, M.R.C.S.E., of a son.

FAUGHT.—On the 7th inst., at Gravesend, the wife of J. G. Faught, M.R.C.S.E., Surgeon-Major, Army, of a daughter, still-born.

LACEY.—On the 11th inst., at Plumstead, the wife of Thomas Warner Lacey, L.R.C.P.L., of a son.

SCULTHORPE.—On the 9th inst., at Tamworth, the wife of A. M. Sculthorpe, L.R.C.P.Ed., of a daughter.

STOCKER.—On the 10th inst., at Montagu-square, the wife of John Sherwood Stocker, M.D., of a son.

STONE.—On the 9th inst., the wife of Valentine Stone, L.R.C.P.Ed., of Laurencekirk, Kincardineshire, of a son.

MARRIAGES.

BARTLETT—WESTON.—On the 3rd inst., at the Parish Church, Heston, Edward Bartlett, M.R.C.S.E., to Lydia Sarah, daughter of Edward Weston, Esq.

BELL—HUDSON.—On the 3rd inst., at St. Marylebone Church, John Mougham Bell, M.D., to Sophie Emily, widow of J. A. K. Hudson, Esq.

DEATHS.

JEFFREYS.—On the 13th May, at Richmond, Surrey, Julius Jeffreys, Surgeon, aged 76.

MANLEY.—On the 16th inst., at Teddington, John Manley, M.D., aged 80.

MORTON.—On the 12th inst., at Helensburgh, Alexander Morton, L.F.P.S.G., aged 64.

NICOL.—On the 13th inst., at Pollokshields, Glasgow, Andrew Nicol, L.R.C.P.Ed.

OLIVE.—On the 10th inst., at Northampton, Eustace Henry Olive, B.A., M.R.C.S., only son of the late John Comley Olive, of Clifton, Bristol, aged 46.

TURNER.—On the 10th inst., at Lower Phillimore-place, Kensington, James William Turner, F.R.C.S.E., aged 59.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

C. E. A. Semple: Aids to Chemistry. Part I. Inorganic.
Dr. G. Thin: Practical Histology.
R. F. D. Palgrave: The Chairman's Handbook.
F. Weiss: Notes from a Dentist's Case-book.
Dr. W. W. Ireland on Idiocy and Imbecility.
Dr. J. K. Spender: The Bath Thermal Waters.
Australian Medical Journal. November.
The Ohio Medical Recorder. April.
J. G. Beaney: Surgical Diagnosis.
Dr. F. T. Roberts: Theory and Practice of Medicine.
Sir J. Paget's Hunterian Oration, 1877.
Mrs. Caddy: Household Organisation.
New York Medical Record.
New York Medical Journal. May.
Western Lancet.
Prof. Bartl: The Treatment of Iron for the Prevention of Corrosion.

SECRET DRINKING.

IN addition to the list of names published in last week's issue, the undersigned members of the medical profession have signed the protest against the "Grocers' Licence" up to this date.

Mr. J. A. Angus, Newcastle-upon-Tyne; Mr. J. A. Austin, Thurso; Mr. G. R. Allan, Glasgow; Dr. J. P. Atkinson, Bampton, Oxon.; Mr. C. Arrol, Sheerness; Dr. A. H. Allehorn, Mr. A. H. W. Ayling, London; Mr. G. N. Adams, Rippingale; Dr. R. Braithwaite, Dr. M. Baines, Mr. A. Brewer, London; Dr. S. Bowden, Gosport; Mr. G. S. Boulton, Lincoln; Mr. B. Barrow, Ryde; Mr. J. Blackburn, Barnsley; Dr. R. Blair, Goole; Dr. E. S. Blaker, Worcester; Mr. F. Barham, Maidstone; Dr. S. B. Birch, London; Mr. G. A. Brown, Monmouthshire; Mr. N. Coulis, Sirhowy; Dr. J. Barker, Dublin; Mr. J. T. B. Burroughs, Mr. J. E. B. Burroughs, Lee; Mr. W. T. C. Bartlett, Falmouth; Mr. A. Beardsley, Grange-over-Sands; Mr. J. Bright, Glastonbury; Mr. R. Barnes, Sydenham; Mr. W. N. Brake, Sunderland; Sir G. Burrows, London; Mr. B. G. Breese, London; Mr. T. Brooks, Mr. T. H. Hills, Cambridge; Dr. C. T. Brookhouse, Dr. Brunton, Dr. H. C. Bastian, Dr. W. B. Bell, Mr. R. Barwell, Mr. G. B. Childs, London; Mr. W. Collyns, Macclesfield; Mr. H. Cheeseman, Devon; Mr. J. Clegg, Epping; Mr. J. L. Couch, Penzance; Mr. F. Calvert, Mr. B. Burton, Beverley; Mr. A. Campbell, Grantham; Mr. C. W. Chapman, Mr. W. M. Long, Mr. H. C. Pope, London; Mr. J. Cheese, Newport, Mon.; Dr. H. Coolahan, Mr. J. Marshall, Mr. H. H. Button, Mr. D. Smart, Mr. J. Cooper, Mr. C. Stirling, London; Dr. J. Coutts, Dr. J. A. Cowan, Dr. Jas. Wilson, Manchester; Dr. A. Chadwick, Heywood; Mr. C. Collambell, Mr. C. Sangster, London; Mr. W. J. Coulson, Dr. W. Campbell, London; Mr. T. Corbett, Kingston-on-Thames; Mr. R. Cuffe, Horncastle; Dr. T. S. Cobbold, London; Dr. C. P. Coombe, Castle Cary; Dr. C. C. Cocks, Ross; Dr. D. Campbell, Alfreton; Mr. Oscar Clayton, Mr. T. Chambers, London; Mr. J. Caldwell, Shotts; Dr. F. H. Daly, Dr. A. T. Gibbings, Dalston; Mr. J. Dewar, Dr. J. P. Scatliff, Mr. J. G. Colborne, Mr. A. Scatliff, London; Mr. W. Davies, London; Dr. C. Drage, Hatfield; Mr. J. Dukinmore, Mr. R. A. Clarke, Middlesborough; Mr. W. Daniel, Mr. H. Drake, Nayland; Dr. J. Davison, Stockbridge; Mr. W. Eddowes, Dr. A. Eddowes, Mr. Dennys, Shrewsbury; Dr. M. G. Evans, Cardiff; Mr. T. Evans, Mr. W. R. Dalton, Harwich; Mr. J. F. Elwin, Bristol; Mr. W. H. Ellis, Shipley, Yorks; Dr. D. W. Eshelby, Mr. E. W. Le Grim, Gloucester; Mr. J. E. Erichsen, London; Mr. V. Edwards; Dr. S. Fenwick, London; Mr. T. Fentem, Dr. S. Fentem, Bakewell; Mr. W. Fletcher, Mr. B. H. Herbert, Uttoxeter; Dr. E. L. Fenn, Mr. Chapman, Dr. A. R. Law, Dr. R. A. Warwick, Mr. W. A. F. Bateman, Mr. W. A. Ward, London; Dr. W. Feyers, Mr. A. Risdon, Mr. H. Cooper, Marlborough; Mr. J. A. Fisher, Liverpool; Mr. R. H. Foster, Mr. J. H. Kimbell, Mr. G. W. Tait, Knowle; Mr. W. E. Fulford, Dr. D. Campbell, Calne; Mr. H. J. Forster, Market Deeping; Mr. T. Frost, Mr. A. Hallam, Sheffield; Dr. S. Fergus, Moy; Mr. A. Ford, Portsmouth; Mr. M. W. Flewitt, Northampton; Mr. F. W. Fowke, Byfield; Mr. F. G. Fowke, Daventry; Mr. E. Garland, Yeovil; Mr. T. Gambier, London; Mr. E. F. S. Green, Woodbridge; Mr. H. Goude, Penge; Dr. G. Griffith, France; Mr. W. F. Grady, Manchester; Dr. H. Gervis, Mr. F. J. Gant, Mr. J. Gay, London; Mr. W. A. Grogons, Essex; Mr. C. Gross, Erith; Mr. C. Gorman, Woolwich; Dr. J. H. Gordon, Salisbury; Mr. J. Gorham, Dr. E. Jevers, Tunbridge; Mr. S. Gibbon, London; Mr. Thos. Gravely, Horsham; Mr. B. C. Gowing, Salisbury; Mr. J. S. Gaunt, Mr. J. P. Gaunt, Redditch; Dr. F. Gourley, Dr. P. B. Burroughs, Mr. R. S. Wallis, Mr. G. Alford, Mr. E. E. Earle, Dr. W. H. D. Bradshaw, Mr. C. Pooley, Mr. J. Wilde, Dr. A. Willmott, Mr. Wm. Jones, Weston-super-Mare; Dr. J. Hatchett, Ashby-de-la-Zouch; Mr. L. Holden, Mr. Jonathan Hutchinson, Mr. S. W. Hin, London; Mr. H. F. Holland, Mr. E. H. Bowker, Ampthill; Mr. A. Hooper, Mr. E. J. Thompson, Burton-on-Trent; Mr. B. Holt, Mr. H. J. Horton, London; Dr. J. A. Harrison, Haslingden; Mr. T. Hodson, Ingatestone; Mr. C. D. B. Hale, Dr. A. Hewan, London; Mr. F. W. Hulke, Mr. W. F. Lovell, London; Dr. N. C. Hatherly, Mr. R. Ley, Mr. A. Hind, South Molton; Mr. J. Hume, Dr. B. Hunter, Jedburgh; Mr. T. J. Hughes, Poplar; Mr. W. Harding, Mr. C. L. Harding, London; Mr. J. R. Hutchinson, St. Albans; Mr. T. H. Hills, Heckmondwicke; Mr. E. B. Hutton, London; Mr. F. Hanham, Mr. J. Davies, Mr. F. W. Hanham, Bath; Mr. W. B. Hepworth, Leeds; Mr. C. Holthouse, London; Dr. B. N. Ingle, Cambridge; Dr. A. Ingham, Keighley; Mr. J. Jackson, Oakham; Dr. J. S. Jenks, Dr. J. Watson, Dr. C. Foulis, Dr. E. D. MacDermot, Bath; Dr. W. Jelly, Madrid; Mr. A. Jukes, Halifax; Mr. J. T. Jones, Sheffield; Dr. G. Johnson, London; Mr. J. H. Kuon, Birkenhead; Mr. T. B. Knott, Middleton; Dr. D. S. Kennedy, London; Mr. H. Kiernander, Plympton; Dr. A. Kidd, Ballymena, Ireland; Mr. G. Kerswill, Mr. E. W. P. Kerswill, Mr. J. B. Kerswill, Cornwall; Dr. J. Kennedy, Manchester; Dr. A. Kirkwood, Edinburgh; Mr. H. W. Kiallmark, London; Dr. H. A. Lediard, London; Dr. C. Lashmar, Dr. W. Rosser, Mr. C. H. Lister, Croydon; Dr. Leake; Dr. J. M. Lindsay, Derby; Mr. D. Lithgow, Wisbeach; Mr. T. W. Lacy, Plumstead; Dr. G. Mundie, Dr. H. Habgood, Eastbourne; Dr. A. Meadows, London; Mr. P. B. Mason, Mr. H. E. Bridgeman, Mr. H. Masey, Burton-on-Trent; Mr. F. Marshall, London; Mr. G. A. D. Mahon, Woburn; Dr. C. Murchison, London; Dr. W. Morris, Thrapston; Dr. W. M'Gowan, Duncannon; Dr. H. Major, Wakefield; Mr. F. Milburn, Mr. Knight, London; Mr. W. Maule, Auchter-

arden; Mr. A. Moor, Leyton; Dr. W. Moxon, London; Mr. W. Nuttall, Bury; Mr. J. Nihill, Limerick; Mr. F. Nash, Todmorden; Mr. J. H. Newington, Mr. E. Saunders, Tenterden; Dr. W. O'Neill, Lincoln; Mr. J. W. J. Oswald; Mr. J. C. Orchard, Kingussie; Mr. T. F. Pedley, London; Mr. W. H. Pearce, Rotherham; Mr. S. T. Palmer, Mr. J. G. Spidston, Birmingham; Mr. C. G. Peacock, Oakham; Mr. G. Pearce, London; Mr. T. F. Pickering, Bolton; Mr. W. Pogson, Leeds; Mr. E. Powell, Maidstone; Mr. J. J. Purnell, Streatham Hill; Mr. W. J. W. Proffitt, Burton-on-Trent; Mr. W. Perkins, Dartford; Dr. T. Pike, Great Malvern; Mr. J. Rayner, Warwick; Dr. C. Royston, Mr. J. R. Lynch, Dr. H. B. Dow, London; Mr. C. H. Robinson, Dublin; Dr. N. Royle, Milnthorpe; Mr. E. Rouse, Mr. E. Cox, Bideford; Mr. W. Lake, Ilford, Essex; Mr. H. Rainbird, Rev. W. De Foe Baker, Retford; Mr. T. Richardson, London; Mr. W. M. Rochfort, Acton; Dr. J. Robson, Birkenhead; Mr. J. R. Ramsay, Cambridge; Mr. J. R. Sutherland, Mr. R. Nesbitt, Leamside; Mr. W. W. Saxton, London; Mr. D. H. Sugden, Mr. W. J. Haines, London; Mr. C. W. Steel, Lewishmam; Dr. J. Stephens, Brighton; Dr. P. Smith, London; Dr. W. W. Stainthorpe, Wickham Market; Mr. W. H. Sheehy, Mr. W. H. P. Sheehy, London; Mr. T. Smith, Stockport; Dr. S. Sutro, London; Dr. A. Sheen, Cardiff; Dr. J. E. Scatliff, Brighton; Dr. Sargent, Dr. J. Hopkins, London; Mr. T. B. Scott, Wellesbourne; Mr. W. J. Smith, Rotherham; Mr. G. K. Sproule, Frome; Mr. W. D. Spanton, Hanley; Mr. R. D. Smith, Mr. A. Wright, London; Mr. W. A. Smith, Clogher; Dr. D. M. Sutherland, Thurso; Mr. C. H. Tamplin, London; Mr. H. Trent, London; Mr. W. Trenther, Uckfield; Mr. J. H. Tarkton, Stockton-on-Tees; Dr. J. H. Torrance, Coventry; Mr. G. H. Thurston, Mr. O. Fowler, Cheltenham; Mr. W. Cornelius, London; Mr. T. W. Trend, Southampton; Mr. J. R. Thomson, Ballymoney; Mr. H. Taylor, Johnstone; Mr. E. W. Valentine, Somerset; Mr. E. G. Varenne, Kelvedon; Mr. W. Walter, Dr. T. Evans, Manchester; Mr. W. Wallace, Halifax; Mr. N. Webster, Leeds; Mr. A. D. C. Walford, Rutland; Dr. A. H. Wylie, Oldham; Mr. R. E. West, Tavistock; Dr. O. F. Wyer, Leamington; Mr. U. West, Stoke-on-Trent; Mr. C. Winstanley, Ingatestone; Mr. G. Ward; Dr. H. D. Wind; Dr. R. M'Wharrie, Hartree; Mr. A. Wiglesworth, Mr. J. Wiglesworth, Liverpool; Mr. R. Wyllie, Scarborough; Mr. Wheeler, Bexley; Mr. H. Wilcox, London; Mr. G. Willing, Southend; Mr. T. S. Woolley, Derby; Mr. W. Wearne, Helston; Dr. T. Rayner, Manchester; Mr. F. R. Hall, Cambridge; Mr. A. Richardson, Manchester; Dr. B. W. Richardson, London; M;. W. T. Ramsden, Normanton; Mr. P. M. Richards, Plumstead; Dr. C. H. F. Routh, Mr. G. O. Rees, London; Mr. A. Smeal, Plumstead; Dr. A. Sanderson, Plumstead; Mr. S. Snell, Sheffield; Mr. T. Sayer, Harling; Mr. E. Saunders, London; Mr. F. Smith, Dr. A. E. Sansom, Plumstead; Mr. F. Vacher, Birkenhead; Mr. J. A. Wardale, Dr. F. Neild, Plymouth; Mr. E. Williams, Aberayron; Mr. T. J. Woodhouse, Fulham; Dr. C. Warden, Birmingham; Mr. C. J. Wright, Mr. H. Walker, Leeds; Mr. E. O. West, Launceston; Dr. J. Williams, Dr. W. H. Walshe, London; Mr. B. C. Waller, Carnforth; Mr. C. Walter, Dover; Dr. W. Warwick, Belfast; Mr. D. Yellowless, Hillhead, Glasgow; Mr. D. Ainley, Halifax; Mr. J. Bolton, Swansea; Mr. J. Callender, Mr. R. Burgess, Dumfries; Mr. Downes, London; Mr. G. P. Dale, Scarborough; Mr. F. F. H. Jay, Nantwich; Dr. J. H. Jackson, Mr. V. D. W. B. Jones, London; Dr. C. S. Leaborne, Dr. J. Morris, Barnsley; Mr. B. J. Lee, Clay Cross; Dr. J. Johnston, Dublin; Mr. C. W. Morris, Campden; Mr. J. Symes, Briton Ferry; Mr. W. G. Shutter, Newmarket; Mr. G. C. Searle, Brixham, Devon; Mr. B. Walker, Derby; Dr. G. Wharton, Mr. R. Couchman, Bedford; Mr. W. F. Sheard, Putney; Mr. G. Alford, Weston-super-Mare.

Notes, Short Comments, and Answers to Correspondents.

SUICIDE IN INDIA.

DR. VINCENT RICHARDS, of Bengal, states that the testimony of medical officers in India goes to show that high temperature has great influence in determining the number of suicides in any given year. The majority of suicides are, he says, committed "during a state of mental excitement—in fact, impulsively—when the nerves are, so to speak, strung to the highest pitch of irritability; even those of the most phlegmatic temperament must have experienced the comparatively irritating effect of the hot weather months."

Union.—It is much to be regretted that boards of guardians attempt to control the recommendations of their medical officers, whether on the score of cost or in the endeavour to inculcate peculiar views. The use of stimulants should be a matter for the discretion of the medical officer. If a board has lost confidence in the practitioner to whose care its sick poor are entrusted, the straightforward course would be to say so, and replace him by another individual more to its taste. It is unjust and impolitic in the extreme to worry a medical officer by vexatious interference or regulations apparently designed to cause annoyance.

A. L. G.—Such an assistant is entitled to have his own opinion, and to make courteous objection to doing what he thinks nurse's duty. A good principal will be glad to give his assistant liberty for reasonable recreation; but as he has not the advantage of stated hours for this purpose, he can scarcely give them to his assistant.

Mr. G. J. West is thanked, but we cannot use the information.

GILCHRIST TRUST PRIZES IN PHYSIOLOGY.

THE delivery of a course of lectures on Physiology by Dr. Richardson to elementary school teachers in London was announced in our columns some months ago. The course was brought to a close in April last, and was so successful that the Gilchrist Trustees, under whose direction the course was instituted, willingly granted a request made to them, through Dr. Carpenter, by the lecturer, to offer a series of prizes and certificates for those students who should pass the best examination at the end of the session. For the examination a large number of candidates presented themselves, and ultimately four prizes with certificates and six certificates without prizes were awarded. In the examination, which was of the most practical kind, microscopical as well as anatomical and physiological specimens were brought into use, Dr. Richardson conducting the examinations, which lasted several hours, and Dr. Carpenter acting as adjudicator of the merits of the different candidates. The first prize consisted of a microscope and certificate, and was awarded to Mr. John Pilley; and the second and third prizes, with certificates, to Messrs. G. Price and W. R. Cory. A supplementary prize, with a certificate, was given to a lady, Miss M. J. Menzies; and certificates of honour to Miss M. C. Menzies, and to Messrs. Marks, Shreeve, Steadman, Adcock, and Galand, all the candidates being engaged in the science and art of teaching in primary schools. The prizes were distributed on Tuesday evening at the rooms of the Society of Arts, the vice-president of the London School Board, the Rev. John Rodgers, being in the chair. Before the presentation of the prizes, Dr. Carpenter gave a most interesting account of the origin of the Gilchrist Trust, and of the mode of its application to educational purposes; and the Chairman, who said he had attended all the lectures of the physiology course, expressed the extreme satisfaction with which he had watched the assiduity and attention of the great class that on each occasion sat down to listen to the lectures. It is worthy of notice, also, that one of the prizemen, Mr. Price, stated that since he had commenced to teach physiology in his school, he had found it the most attractive of all the subjects in the teaching of which he was daily engaged. The action of the Gilchrist Trustees, in awarding prizes for competent knowledge of the laws of life can scarcely be overvalued.

Mr. Frederick Treves' paper shall be published as early as possible.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The Indian Medical along with other branches of the Service have just received the pleasant intelligence that their salaries have been reduced 12 per cent. This has been brought about by the rate of exchange, which has been fixed at 1s. 9½d. for the ensuing financial year. *Credat Judæus!* With the clear understanding between Government and its servants, that the rupee to the latter should always be equivalent to 2s., the Secretary of State deliberately takes the bull by the horns, and with a stroke of his pen makes an agreement as binding as if it had never been thought of; whereas during the time the rate of exchange was favourable to India, the servants of the Government gained no advantage whatever from it. Now, in all fairness and honesty, is such a policy as this calculated to entice men into the service, or make those already in it inclined to be contented, and devote their energies to the good of the State? Hardly, one would imagine. However, it seems useless agitating unless we obtain the support of the press, and especially that portion of it devoted to the profession. Under these circumstances, will you give us the aid of your powerful pen, and point out to the profession at home the ruthless manner in which we are treated? This may have the effect, not only of provoking a discussion, as to the legitimacy of so robbing us and our children, by all classes of people, but of holding out the "red flag signal of danger" to those dreaming of an Indian career. Petitions are now being forwarded to Government by the profession at large, pointing out the utter inadequacy of existing pensions, and praying for their revision, so as to suit the times we live in. Enclosed is No. 2 for your perusal. If you can lay it prominently before the profession, it will no doubt bear abundant fruit to the benefit of the profession at large, affording at the same time encouragement to a number of exiles, with whom faith has been so often broken that suspicion has usurped the place of confidence, and discontent has become the order of the day.

Yours &c.,

April, 1877. VERITAS.

THE TURCO-RUSSIAN WAR.

M.R.C.S., (St. Ives,) and other correspondents, who have written to us respecting the employment of surgeons in the belligerent armies, should address the Ambassadors of the respective countries; or the Red Cross Society, Craven-street, Strand.

F. J. B.—We entirely agree with the writer in his view that medical men, required to certify for the convenience or information of School Boards, should receive a fee from those bodies directly, and not be left to sue for costs from the parents of children, teachers, and other persons named in their certificates. The practice with regard to Insurance Office fees is applicable to this matter, and ought to be adopted without difficulty.

Fiat Justitia.—It is not unusual for the mover of a resolution to act as voter by proxy for those who give him their support *in absentid*. The candidate should not himself be the proxy, but his proposer may be.

Dr. Sutherland Rees-Phillips.—Waterclosets in sleeping apartments violate the first principles of sanitary prudence. Their introduction cannot be too strongly condemned.

THE reports of the meetings of the Medico-Chirurgical, Pathological, Clinical, and Obstetrical Societies are postponed on account of the pressure on our space caused by the meetings of the General Medical Council.

Mr. R. Wyllie.—The best course will be to apply to a bookseller.

THE RELATION OF AGE AND SEASON TO DISEASE.

IN the recently issued Supplement to the Monthly and Quarterly Returns of the Births, Deaths, and Marriages registered in Scotland in 1876, an attempt is made to illustrate the incidence of fatal disease at the various seasons of the year upon persons of different ages. Thus, children during the first five years of life died in largest numbers during the months of February and March. January and May were also months of considerable mortality among this class of age. After May the deaths fell off. The minimum of deaths was reached in September. Adolescents, or those aged from 5 to 50, died in greatest proportion in April, which was a cold, ungenial month, and likewise in May. The minimum mortality of adolescents was in November and December. Adults, among whom are included all persons between 20 and 60 years of age, died in largest proportion in February, March, and January. The mortality among adults attained its minimum in October, and continued low during November and December. Elderly persons, including all aged 60 and upwards, suffered most severely in March and February. As in the case of adults, the mortality of the aged was at its minimum in October, and then continued low to the end of the year. Another interesting fact noticed in the Supplement is that the exceedingly stormy and wet weather in November and December seemed no more trying to the health of the inhabitants of the principal Scotch towns than were the mild days of June. The explanation offered for this contrast is that the amount of winter mortality is ruled by the temperature that prevails more than by any other circumstance, and that rain, wind, absence of sunlight, and even prevalence of east wind, are found to be comparatively innocuous in winter, if only the thermometer keeps tolerably steady at a point above its average reading.

M.B., C.M.—It would not be right; but there would be no danger of prosecution in a case so contrary to professional etiquette.

Dr. Caddy.—The book was favourably noticed in our columns on the 28th of April last.

RARE FATAL INJURIES.

To the Editor of THE LANCET.

SIR,—On reading in the "Mirror" (THE LANCET, May 5th) the case reported by Mr. Barwell of Fracture of Ethmoid by a Thrust from an Umbrella-ferrule, I am reminded of a similar case that was admitted into the London Hospital when I was a dresser at that institution. The cause of death was, however, not ascertained till a post-mortem was made.

The patient, a middle-aged man, was found in an unconscious state in a barn at a farm-house a few miles down in Essex. When admitted, he was unconscious, and remained so till death, no history of the case ever being obtained. If I remember rightly, his name was never known. The symptoms closely resembled those of Mr. Barwell's patient after he became unconscious, except that there was no bleeding from the nose. He lived, I think, about three days. No marks of violence were discovered externally during life. At the post-mortem, on opening the skull and removing the brain, a quantity of dark-coloured blood was discovered on the under surface of the anterior lobe on the left side. There was, I remember, some discussion as to the cause of death, some present being of opinion that it was a case of cerebral hæmorrhage, fracture of the skull being not in the least suspected. Attention was then directed to a small scab over the left upper eyelid, just above the eye. On removing this scab, a hole large enough to admit the end of a fine penholder was discovered. A probe passed readily upwards, pushing before it a very small fragment, half the size of a three-penny-piece, of the orbital plate of the frontal bone. The fragment of bone was raised like a small trap-door, and, on removing the probe, could be closed again. The brain was also found to be lacerated over the seat of fracture.

I think this case of interest, as it shows the necessity of carefully examining all the weak parts of the skull in cases of obscure cerebral symptoms.

I am, Sir, yours obediently,

Flaxton, York, May 8th, 1877. ALFRED KEBBELL, M.R.C.S. Eng.

Inquirer.—The examination is not obligatory, but should now be passed by all volunteer surgeons, as it assures to the corps a capitation grant. Parkes's Hygiene and a good general knowledge of professional work are all sufficient.

Dr. Fritzsche, (Warsaw.)—Our correspondent should order through his publisher the Transactions of the Royal Society.

MEDICAL CERTIFICATES IN CASES OF INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—School Boards in the country are beginning to demand certificates of illness from medical practitioners in the case of absent scholars. I am desirous of ascertaining the opinion and practice of the profession in London on this subject. It appears to me to be a heavy imposition on medical men, taxing their time, committing them to definite statements respecting duration of illness, &c., and rendering them protectors of school interests against malingering. And all this gratuitously! School Boards should pay for certificates if they require them. What fee should be demanded? Seeing that hundreds of certificates would be required, perhaps one shilling would be reasonable.

Yours truly,

Rochester, May 12th, 1877. FREDK. JAMES BROWN, M.D.

*** The letter of our correspondent points to a question which will have to be seriously considered by the Legislature and the profession. There is no custom that can be appealed to. The recent creation of Board Schools, and the strong pressure put on children to attend, give rise to the difficulty on the part of medical men, who must either disoblige the School Board authorities, or at a great cost of time and trouble supply the certificates. The onus of reporting either to School Boards or to Municipal Councils or Vestries ought to rest entirely on the friends of the patient, and not on the medical man. But it would be altogether reasonable that these public bodies should pay for medical certificates, as they have such an enormous interest in receiving reliable and early information.—ED. L.

LARGE FORAMEN OVALE.

DR. AUSTIN FLINT recently exhibited at a professional meeting a heart with a remarkably large foramen ovale, which had been removed from an adult dissecting-room subject. In the auricular septum could be distinctly traced the boundary of an opening, two inches in one direction and one and three-quarter inches in another. The right auricle was considerably dilated. The left had been cut away in removing the organ.

A Subscriber.—It is doubtful; but he may recover for services rendered by an unregistered assistant.

"CRAM."

To the Editor of THE LANCET.

SIR,—In your remarks on "Cram," with which I agree in the main, you appear to me to leave out some of the chief arguments against a system which has been so well defined and so parodoxically defended by Professor Jevons.

It has been a matter of amazement to me how completely physiological considerations have been ignored in the voluminous discussions which have taken place about competitive examinations. "Merit" has come to be synonymous with "marks," and the physical condition and moral tone which are indirectly fostered in the candidates by different systems of examination are not alluded to, and yet it does not require much consideration to see what the tendency of "cram" examinations is from this point of view.

I will take a few characteristic questions from the Oxford Literæ Humaniores papers, which pre-eminently require dialectical power rather than "cram," and then I will take a few questions from the "Literature" papers set at the Indian Civil Service examinations, and the opposite tendencies will be pretty obvious. First, from the Oxford papers: "How far were decentralising influences at work under, and favoured by, the early Emperors?" "What are the chief sources of the distortions which we meet with in history?" "What other checks on the action of Government can there be besides that of public opinion?" "The effects of a foreign war on the domestic institutions of the country?" and so on.

Now, in preparing for an examination of this sort, *overwork* defeats its own object. The candidate has to answer questions requiring certainly a knowledge of facts, but also requiring the exercise of reason. He must be fresh and vigorous, and has all the better chance of a "first" if he is in buoyant and exulting health and spirits; and I maintain that five or six hours' daily work is not only amply sufficient to get a man his "first" (if he has brains for a "first"), but he is much more likely to be a vigorous, useful member of society, with the "go" which is required to impress himself on parish, school, regiment, or Indian district, than if he had worked at books for eight or ten hours at the age of eighteen or twenty.

Now contrast with this the preparation required for cram questions, such as—"State what you know about the following works: The Philobiblion, the King's Quair, and the Confessio Amantis, the Paxton Letters, the Repressor, the Alchemist, Tamberlane," &c. &c.; or "Compare the styles of Hume, Robertson, and Gibbon"; or, "What are the characters of the order Amentaceæ and of its sub-orders?"

Answering these requires no *freshness*. You know the thing or you don't. For if anyone thinks that even the comparison of authors' styles is the fruit of an extensive reading of their works thrown into form at the time, he is grievously in *error*. A well-crammed candidate has a pat criticism ready about several hundred authors. Now this sort of repetition lesson may go on for ten or twelve hours daily without being overdone for examination purposes. The memory is very elastic, and it is wonderful what it will hold when it has only got to hold it for a short time. But I submit that in this process of cramming there is great injury being done to the candidate. He probably lives in town with or near a tutor, whose whole business is to get his pupils through. He is told, and quite rightly, that he may work the whole day without hurting his chance, and perhaps for a few months without obviously hurting his health so much as to induce definite disease; he is turned out at night for an hour or two of city recreation. Perhaps a successful attempt might be made to set up a cram establishment in the country; but at present the city establishments have it their own way, and I rather fancy that the unhealthy mental process consorts best with unhealthy physical and moral surroundings.

I quite grant that even for examinations requiring trained and ready ability rather than quantities of information, overwork is both possible and common; and overwork or excessive mental strain, unbalanced by joyous physical exertion in pure country air, not only injures the health, but it injures the *future* mental strength, even where it is successful for the present. Overtrain your young horse; he may win races at two, but he will be out of the running at four. Overwork your young man; he may appear a brilliant success at eighteen, but he will have less mental force at thirty or forty. It has sometimes been said that Wellington or Clive could not have passed high for Woolwich or the Indian. I have no doubt that they could if they had set themselves to the task; but the future *greatness* of the men would have been destroyed in the process.

This danger, however, is minimised in a system like the Oxford Class List, partly from the alphabetical arrangement of the classes, and partly from the nearly complete exclusion of "cram" from the examinations. It exists in the highest degree in the various "cram" examinations, and it is difficult to estimate the harm they are doing physically, intellectually, and morally to the picked young men of England. The power of working mathematical problems, the power of translation and of composition, of writing essays, of answering questions on history, political philosophy, and moral subjects generally, requiring thought and arrangement at the time, and again such a practical knowledge of various branches of physical science as can be *tested* in the laboratory or dissecting-room, cannot be crammed, require genuine mental culture, and do not demand an injurious amount of book-work. But questions *about* authors, ancient and modern, questions about antiquities, inscriptions, coins, the details of battles, and questions demanding a text-book knowledge of botany, geology, &c., are frightfully crammable, and should have no place in examinations if their object is to choose young men with harmoniously developed minds and bodies, and therefore more probably fit than the nominees of patronage for various branches of the public service.

I am, Sir, your obedient servant,

May, 1877. HEAD MASTER AND DOUBLE FIRST.

THE CABINET TURKISH BATH.

MESSRS. ELLIS AND CO., of Hart-street, Bloomsbury, have called our attention to their Cabinet Turkish Bath. The apparatus consists of a wooden cabinet, mounted upon castors, and fitted with an adjustable seat and foot-rest. By its means the advantages of a Turkish bath can be had in private dwellings without the slightest danger or inconvenience. The head, of course, remains outside the cabinet. No preparation is required beyond lighting a lamp, and the cost for each bath is stated to be about one penny. The cabinet is light and portable, and can be got ready in a few minutes, and used without the assistance of an attendant. We are of opinion that the apparatus will prove extremely serviceable where it is impossible or inconvenient to have recourse to the regular Turkish bath.

WE cannot too strongly condemn the following advertisement sent as a post-card:—

"Hearts of Oak Benefit Society,
"17, Charlotte-street, Fitzroy-square, W., May 1, 1877.

SIR,—I am requested to bring under your notice the advantage you would derive by joining the 'South London Hearts of Oak Medical Agency,' the medical officers of which are—Drs. Swallow and Badcock, 87, Kennington-park-road, S.E. Medical attendance and medicine are supplied to members of 'Hearts of Oak Society,' and the subscription is one shilling per quarter, and sixpence entrance fee, payable at 87, Kennington-park-road.

"The present is a most favourable time for joining, as a new quarter is about to commence. Drs. Swallow and Badcock may be consulted every day (except Sunday), before eleven and after six o'clock.

"I remain, Sir, yours faithfully,
"THOS. MARSHALL."

ERRATUM.—Two letters were accidentally omitted from the title of Mr. Higgens' article last week. It should have been *Rodent* Ulcer, not "Rent" Ulcer.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Jas. Paget; Dr. Braxton Hicks; Mr. J. Marshall, London; Mr. Maunder, London; The Duke of Westminster; Dr. Buzzard; The Earl of Onslow; Dr. Tibbits; Mr. Francis Mason; Dr. T. Barlow; Mr. Hodgkinson, Manchester; Mr. Taylor, Guildford; Dr. Thursfield, Shrewsbury; Mr. Roxburgh, Edinburgh; Mr. Chevallez, Balham; Mr. E. Bellamy, London; Mr. Douglas, Newbury; Mr. Wyllie, Cloughton; Mr. Sprague, Birmingham; M. Pean, Paris; Mr. Higgens, London; Mr. Tallack, London; Mr. Lee, Heckmondwike; Mr. Wykes, Leicester; Mr. Johnson, Croydon; Mr. O'Rorke, Kingstown; Dr. Baldwin, Columbus, Ohio, U.S.A.; Mr. Turner, London; Mr. Dobbin, Brompton; Messrs. Robinson and Cleaver, Belfast; Mr. Holmes, Leeds; Mr. Hemming, London; Dr. Brown, Rochester; Dr. Ball, Brixton; Dr. W. Reid, Croydon; Dr. Marshall, Nottingham; Dr. Fritsche, Warsaw; Mr. S. Smyth, London; Mr. Ingpen, London; Mr. Wright, London; Mr. Macphail, Glasgow; Dr. Scott, Southampton; Mr. Miller, Chelsea; Mr. Dean, Derby; Dr. Reid, London; Mr. Rigby, Rochdale; Mr. Bond, West Bromwich; Miss Hutchinson, Ilfracombe; Mr. Fraser, Knutsford; Messrs. J. N. Clarke and Co., London; Mr. Leeds, Sheffield; Mr. Prowde, London; Mr. Alford, London; Mr. J. A. Groves, London; Dr. Cholmeley, London; Mr. Wedgwood, London; Mr. Gray, Edinburgh; Mr. Wilmott, Weston-super-Mare; Mr. A. Coleman, London; Mr. Warren, London; Mr. W. Haward, London; Dr. G. Henty, London; Mr. Davis; Mr. Stevens; Mrs. Williams, Newport; Dr. Allen, March; Dr. Blythman, Swinton; Dr. Williams, Croydon; Dr. Phillips, Dover; Mr. Pitman; Mr. Wylde; Dr. Corston, Ware; Mr. B. L. Allen, Douglas; Mr. Edmans, Sutton; Dr. Eccles, Bootle; Dr. Smith, Shepton Mallet; Dr. Leslie, Ditchling; Dr. Caulfield, Cork; Dr. Fenwick, Teignmouth; Mr. Chorlton, Fairford; Mr. Piggott, Cannock; Dr. Coats, Glasgow; Mr. Jackson; Dr. Eberle; Mr. Cardwell, Northampton; Mr. Richardson; Mr. Powis; Mr. Fullard, Croyland; Mr. Walker; Dr. Hitchcock, Lewisham; Dr. M'Lintock, Stretton; Dr. Warden, Birmingham; Dr. Bradley, Garrow-on-Tyne; Mr. Johnson, Bow; Mr. Prangley, Aylesham; Dr. Yates, Richmond; Mr. Westwood; Mr. Westlake; Dr. Alexander, Glasgow; Mr. Bewsher; Mr. Treves, Wirksworth; Registrar-General of Births and Deaths; Sigma; His Friend; G. G. T.; A Churchwarden; M.D., C.M.; Surgeon, Bridgwater; Registrar-General of Edinburgh; M.B. Lond.; &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Stewart, Nottingham; Mr. Walford, Ramsgate; Dr. Wilson, Glasgow; Dr. Crowther, Luddenden; Dr. Arnison, Newcastle-on-Tyne; Mr. Howells, Carmarthen; Messrs. Hill, Davidson, and Co., Glasgow; Mr. Taylor, Buxton; Messrs. Smith and Son, Birmingham; Mr. Seymour, Coventry; Mr. Legge, Aberdeen; Messrs. Porteous and Co., Glasgow; Dr. Whitehouse, Thetford; Miss Black, Newmarket; Mr. Hope; Dr. Savage; Mr. Forshaw, Smalley; Mr. Thompson; Mr. Thomas; Dr. Tinley, Whitby; Mr. Kenyon, Billingborough; Mr. Roocroft; Mr. Lawson; Mr. Collens; Mr. Buckland; Mr. Taylor; Mr. Powell; Mr. Best, Bilston; Mr. Wade; Mr. Whitworth; X. Y. Z., Lewes; Medicus, Leamington; R. H. T., Haverfordwest; Medicus, Dublin; R. M., Chichester; A. L. G.; X. S., London; H. A. C., London; Medicus, Manchester; A. M.; F. S.; Medicus, Huddersfield; Alpha, Wolverhampton; H. A. S., Greenhithe; L. M., Ipswich; X. Y. Z., Andover; H., Notting-hill; T., Derby; S. C. R. F.; X. Y., Liverpool; M.D., Derby; F. H.; Forceps; Physician; M.R.C.S.; A. B. C., Nottingham; Medicus, Edinburgh; Daleth; Medicus, Bristol; C. M. T., Malton; Surgicus.

West Surrey Times, Australasian, Hexham Courant, Tasmanian, Blackburn Times, South Durham and Cleveland Mercury, Heckmondwike Reporter, Royal Leamington Spa Courier, Ulverston Mirror, and *Bradford Chronicle* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, MAY 17TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall	Remarks at 8 A.M.
May 11	29·53	W S W	49	50	82	59	47	...	Raining
„ 12	29·37	S.E.	49	51	68	56	45	0·37	Overcast
„ 13	29·62	E.S.E.	51	54	84	60	48	0·13	Cloudy
„ 14	29·66	E.	48	50	67	57	45	0·07	Overcast
„ 15	29·81	W.	51	53	98	64	49	0·11	Overcast
„ 16	30·12	S.W.	49	52	93	61	44	...	Cloudy
„ 17	29·90	S.S.W	51	53	...	53	50	0·46	Raining

Medical Diary for the ensuing Week.

Monday, May 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 3 P.M.

Tuesday, May 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 3 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar, "On Davy's Chemical Philosophy."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Pearson Irvine, "On the Clinical Conditions of the Heart and Vessels in Chlorosis."—Mr. Wm. Adams, "On Contraction of the Fingers and its Treatment by Subcutaneous Division of the Palmar Fascia and Immediate Extension."—Dr. D. Finlay and Mr. R. W. Parker, "On Primary Cylindrical Epithelioma of the Lung, with Secondary Deposits in the Pleura, Bronchial Glands, and Liver."

Wednesday, May 23.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 3½ P.M.

Thursday, May 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Heat."

Friday, May 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. W. H. Gilbart, "On the Staining of Vegetable Tissues."
ROYAL INSTITUTION.—9 P.M. Mr. G. J. Romanes, "On the Evolution of Nerves and Nervo-systems."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Farquharson, "On a Case of Small-pox originating from the Contagion of Chicken-pox."—Dr. Murchison, "On a Case of Enteric Fever treated by Salicylate of Soda."—Dr. Thin: Microscopic Specimens of the Skin of a Case communicated to the Society in 1874 by Mr. Morrant Baker.—Mr. Owen, "On a Case of Misplaced Testis" (a living subject).

Saturday, May 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. W. H. Pollock, "On Modern French Poetry."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

TERMS FOR ADVERTISING IN THE LANCET.

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N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 20*bis*, Rue Grenelle St. Germain, Paris.